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RICAN SCIENTIFIC CONGRESS

FINAL ACT

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Ernest E. Battell

May 6. 1916

SECOND PAN AMERICAN SCIENTIFIC CONGRESS

HELD IN THE CITY OF WASHINGTON IN THE UNITED STATES OF AMERICA

DECEMBER 27, 1915–JANUARY 8, 1916

THE FINAL ACT

AND INTERPRETATIVE COMMENTARY THEREON

PREPARED BY

JAMES BROWN SCOTT, A. M., J. U. D., LL. D.

Reporter General of the Congress

Delegate on the part of the United States of America

President of the American Institute of International Law

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FOREWORD.

The present volume contains the Final Act of the Second Pan American Scientific Congress, adopted on January 8, 1916, and signed the same day by the official delegates authorized thereto by the twenty-one American Republics participating in the Congress. The Final Act is therefore official in the highest degree.

This important document, it will be observed, is accompanied by an interpretative commentary or general report discussing the origin and nature of the Congress, outlining its methods of procedure, explaining the resolutions and recommendations contained in the Final Act, and stating the sense in which they were understood and accepted by the Congress. The commentary has been prepared by Mr. JAMES BROWN SCOTT, as reporter general, appointed by the Executive Committee of the United States and the Executive Committee of the Congress to prepare in its name and in its behalf the general report of the scientific labors of the Congress.

The volume contains, in addition, the program as finally carried out, the list of scientific institutions, associations, learned societies participating in the Congress, and the lists of names of all persons invited to take part in the proceedings. It is believed that the preparation and the publication of the Final Act and the interpretative commentary at this early date, long before the proceedings, which will fill many volumes, can be issued, will not only make clear the important results reached by the Congress, but will also sustain the interest in it and its proceedings, which can only be confirmed by the publication of the proceedings in their entirety.

Mr. SCOTT asks me to thank the Chairmen of the nine Sections of the Congress, the Assistant Secretary General, Dr. GLEN LEVIN SWIGGETT, and the Recording Secretary of the Executive Committee of the Congress, HENRY RALPH RINGE, Esq., for their invaluable assistance in the preparation of the commentary and of the documents which are contained in the present volume.

JOHN BARRETT,
Secretary General.

WASHINGTON, D. C.,
February 28, 1916.

CONTENTS.

Page.

Foreword ... 3
Final Act:
Preamble ... 7
Official delegates ... 7
Aims and purposes of the Congress ... 16
Topics discussed in the nine sections:
Section I ... 17
Section II ... 18
Section III ... 19
Section IV ... 20
Section V ... 21
Section VI ... 23
Section VII ... 24
Section VIII ... 25
Section IX ... 25
The Final Act ... 26
Official delegates signatory ... 41
General Report upon the Final Act ... 43
The Executive Committee of the Congress ... 46
The Executive Committee of Organization ... 48
Committee on Resolutions ... 49
Committee on Recommendations ... 49
Committee on the Final Act ... 50
Interpretative commentary on the Final Act ... 50
Articles 1 to 49 ... 51
Appendices:
I. Organization and rules ... 155
II. Topics for Pan American Conferences ... 159
III. The three plenary sessions ... 163
IV. Program of the nine sections of the Congress ... 167
Section I ... 167
Section II ... 183
Section III ... 191
Section IV ... 207
Section V ... 227
Section VI ... 241
Section VII ... 251
Section VIII ... 265
Section IX ... 283

Appendices--Continued.

Page.

V. Learned societies, educational institutions, private organizations, and governmental bureaus 293
VI. The Executive Committee and other committees of organization 309
Cooperating committees in Republics other than the United States 323
VII. Members of the Congress 331
Honorary members 331
Members of societies, institutions and committees, and writers of papers 336

THE FINAL ACT

OF THE

SECOND PAN AMERICAN SCIENTIFIC CONGRESS

HELD IN THE

CITY OF WASHINGTON, IN THE UNITED STATES OF AMERICA,

DECEMBER 27, 1915-JANUARY 8, 1916.

The Second Pan American Scientific Congress, convoked by the Government of the United States of America pursuant to a resolution of the First Pan American Scientific Congress, convened in the city of Washington on December 27, 1915,[1] for the purpose of bringing into close and intimate contact the leaders of scientific thought and of public opinion in the American Republics, to the end that by an exchange of views results might be reached of service to the peoples of the American Continent and that by personal intercourse foundations would be laid for friendly and harmonious cooperation in the future.

OFFICIAL DELEGATES.

The Governments of the American countries, responding to the invitation of the United States, appointed the following official delegates to represent them in the Congress, to wit:

ARGENTINA.

ERNESTO QUESADA, Chairman of the Delegation; member of the Faculty of Philosophy and Literature, National University of Buenos Aires; Professor in the University of La Plata; Attorney General of the Court of Appeals in the Federal Capital.

JUAN B. AMBROSETTI, Advisory Professor and Director of the Ethnological Museum, Faculty of Philosophy and Literature, National University of Buenos Aires; Honorary Vice President of the Congress of Americanists.

EMILIO E. DAGASSAN, Electrical Engineer in the Argentine Navy.

BENJAMÍN GARCÍA APARICIO, Colonel of the Argentine Army; Director, Geographical Institute of the Staff of the Argentine Army.

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[1] See Appendix III, p. 163.

CRISTÓBAL M. HICKEN, Professor of Botany, National University of Buenos Aires; Professor in the Argentine Military Academy; Ex-Inspector of Secondary Education.

Rear Admiral JUAN A. MARTÍN, Ex-Minister of Marine; Chief of the Argentine Naval Commission in the United States.

AGUSTÍN MERCAU, Vice Dean of the Faculty of Exact, Physical, and Natural Sciences, National University of Buenos Aires; Counselor and Professor in the same; Professor in the Faculty of Physics, Mathematics, and Astronomy, University of La Plata.

RICARDO SARMIENTO LASPIUR, Professor in the Faculty of Medicine in the National University of Buenos Aires; Surgeon in the Fernandez Hospital; Secretary of the Board of Public Medical Aid.

TOMÁS S. VARELA, Professor in the National University of Buenos Aires; President of the Argentine Odontological Society; Secretary of the Delegation.

BOLIVIA.

His Excellency Sr. IGNACIO CALDERÓN, Envoy Extraordinary and Minister Plenipotentiary to the United States; Chairman of the Delegation.

CONSTANT LURQUIN, Director of the Meteorological Observatory of Sucre; Professor of Mathematics, Normal School of Sucre.

BRAZIL.

His Excellency Sr. DOMICIO DA GAMA, Ambassador to the United States, Chairman of the Delegation.

His Excellency MANOEL DE OLIVEIRA LIMA, Envoy Extraordinary and Minister Plenipotentiary of Brazil; Member of the Brazilian Academy of Letters, of the Royal Society of Literature of England, of the Royal Spanish Academies of Language and History, and of the Portuguese Academy; Official Delegate of the State of Sao Paulo.

JOSÉ RODRÍGUEZ DA COSTA DORIA, Physician, Former Governor of the State of Sergipe; Member of the House of Representatives; Official Delegate of the State of Bahia.

CHILE.

His Excellency Sr. EDUARDO SUÁREZ MUJICA, Ambassador to the United States; Chairman of the Delegation.

JULIO PHILIPPI, Professor in the Pedagogical Institute; Lawyer; Professor of Public Finance in the University of Chile; First Secretary of the Chilean Delegation to the Third Pan American Conference; Counselor of the Chilean Delegation to the Fourth Pan American Conference; Vice Chairman of the Delegation.

ALEJANDRO ÁLVAREZ, former Counselor to the Ministry of Foreign Relations; Counselor to the Chilean Legations in Europe; Member of the Permanent Court of Arbitration at The Hague; Secretary General of the American Institute of International Law.

DANIEL ARMANET FRESNO, Civil Engineer, Honorary Secretary of the Delegation.

RICARDO COX MÉNDEZ, Former Minister of War and Member of the Chilean Congress.

JAVIER DÍAZ LIRA, Member of the Bar of Santiago; Member of the American Academy of Political and Social Science.

JOSÉ MARÍA GÁLVEZ, Professor in the Pedagogical Institute.

JORGE MERY, Captain in the Chilean Navy.

TEODORO MUHM, Surgeon; Professor of Experimental Physiology in the School of Medicine, Santiago de Chile.

JAVIER RODRÍGUEZ BARROS, Professor in the Medical College, Santiago.

DARÍO E. SALAS, Professor in the University of Chile; Professor of Pedagogy, Pedagogical Institute of Chile.

RAMÓN SALAS EDWARDS, Civil Engineer; Professor of General Hydraulics, Catholic University.

ARTURO E. SALAZAR, Professor of Electro-Technical Science and Industrial Physics, University of Chile; former Professor of General Physics, Naval School of Chile.

MOISÉS VARGAS, Assistant Secretary of the Ministry of Transportation; Professor of Administrative Law, University of Chile.

COLOMBIA.

ROBERTO ANCÍZAR, Lawyer, Chairman of the Delegation; Secretary of the Legation in the United States.

PHANOR J. EDER, Lawyer.

FRANZ HEDERICK, Professor of Modern Languages, University of Bogota; Representative of the Press of Colombia; Secretary of the Delegation.

TULIO OSPINA, Rector of the School of Mines, Medellin; former Rector of the University of Antioquía; President of the Historical Academy of Antioquía; Member of the Geological Society of France, and of the Academy of Science of California.

EDUARDO RODRÍGUEZ PIÑERES, Lawyer; Ex-President of the Colombian Academy of Jurisprudence; Honorary Member of the Academy of Legislation and Jurisprudence of Madrid.

CALIXTO TORRES UMAÑA, Surgeon, National University of Colombia; Chief of the Clinic in the Faculty of Medicine; Ex-President of the Society of University Medicine.

COSTA RICA.

EDUARDO J. PINTO, Chairman of the Delegation; Director of the International Bank of Costa Rica.

His Excellency Sr. MANUEL CASTRO QUESADA, Envoy Extraordinary and Minister Plenipotentiary to the United States.

CUBA.

His Excellency Sr. CARLOS MANUEL DE CÉSPEDES, Envoy Extraordinary and Minister Plenipotentiary to the United States; Chairman of the Delegation.

ARÍSTIDES AGRAMONTE, Professor in the School of Medicine, National University.

RAFAEL MARÍA ANGULO, Member of the Bar of Habana.

JOSÉ COMALLONGA, Professor in the School of Agronomy, National University; Agricultural Engineer.

JUAN SANTOS FERNÁNDEZ; President of the Academy of Medicine, Physics, and National Sciences of Habana.

His Excellency Sr. JUAN DE DIOS GARCÍA KOHLY, Envoy Extraordinary and Minister Plenipotentiary to Holland; Member of the Permanent Court of Arbitration at The Hague.

JUAN GUITERAS, Director of the Health Bureau, Department of Public Health and Charities; Member of the National Board of Health; Professor in the School of Medicine, National University; Director of the National Hospital for Infectious Diseases.

MARIANO GUTIÉRREZ LANZA, S. J., Assistant Director of the Astronomical Observatory, Belén College of Habana.

MARIO G. LEBREDO, Chief of the Bureau of Laboratory Investigations and Study of Infectious Diseases, Department of Public Health and Charities.

José Carlos Millás y Hernández, Architect; Assistant Director of the National Observatory of Cuba.

Luis Montané, Physician and Professor of Anthropology, University of Habana; Member of the Society of Americanists of Paris; Honorary Member of the Academy of Sciences of Habana; Associate Member of the Argentine Scientific Society.

Fernando Sánchez de Fuentes, Member of the House of Representatives from the Province of Habana; Professor and Secretary of the Faculty of Law in the National University; Ex-Chairman of the Committee on Codes and Jurisprudence, House of Representatives of Cuba.

Simón Sarasola, S. J., Director of the Observatory, Montserrat College, Cienfuegos.

Moisés A. Vieites, Member of the Bar of Habana; Counselor to the Merchants Aid Association and the "Centro Gallego" of Habana.

José Ramón Villalón, Secretary of Public Works; Professor in the National University; Member of the American Society of Civil Engineers; Member of the Academy of Physical and Natural Sciences of Habana; Member of the Cuban Society of Engineers; Colonel in the "Ejército Libertador."

DOMINICAN REPUBLIC.

His Excellency Sr. Armando Pérez Perdomo, Envoy Extraordinary and Minister Plenipotentiary to the United States; Chairman of the Delegation.

Francisco J. Peynado, Ex-Minister to the United States; Member of the International High Commission; Permanent Delegate to the Pan American Financial Conference.

ECUADOR.

His Excellency Sr. Gonzalo S. Córdova, Envoy Extraordinary and Minister Plenipotentiary to the United States; Chairman of the Delegation.

Miguel H. Alcívar, Professor in the University of Guayaquil; Surgeon in the General Hospital; President of the Society of Medicine and Surgery of Guayas.

César D. Andrade.

Víctor Manuel Peñaherrera, Professor of Law, Central University of Quito.

GUATEMALA.

His Excellency Sr. JOAQUÍN MÉNDEZ, Envoy Extraordinary and Minister Plenipotentiary to the United States; Chairman of the Delegation.

ADRIÁN RECINOS, Assistant Secretary of Foreign Relations; Member of the Faculty of Law of Guatemala.

HAITI.

CHARLES MATHON, Chairman of the Delegation; Member of the Faculty of Medicine, Port au Prince, and an Officer of the Academy; President of the Society of Tropical Medicine of Paris; Vice President of the Medical Society of Port au Prince.

LEÓN DEJEAN, Lawyer; Chief of the Bureau of the Department of Foreign Relations.

EBERLE FIRMIN; Lawyer; Ex-Chargé d'Affaires.

HONDURAS.

CARLOS ALBERTO UCLÉS, Chairman of the Delegation; Rector of the University of Honduras; President of the Society of International Law of Honduras, of the Literary Scientific Society of Honduras, and of the Cooperative Committee of Honduras.

FAUSTO DÁVILA, Lawyer; Former Minister to the United States; Professor of Public Law in the Central University of Honduras; Ex-Minister of Foreign Relations, of the Interior, of Public Instruction and Justice; Delegate to the Second and Third Pan American Conferences; Ex-President of the Chamber of Deputies; Justice of the Supreme Court.

MEXICO.

MANUEL GAMIO, Chairman of the Delegation; Inspector General of Archæology in Mexico; Professor of History, Academy of Fine Arts; Ex-Professor of Archæology in the National Museum; Professor of Ethnology, Ethnographic Institute.

LUIS CASTILLO LEDÓN, Ex-Director of the National Museum of Archæology, History, and Ethnology; Representative of the Mexican Government to the International School of American Archæology and Ethnology; Ex-Deputy to the XXVI Congress; Member of the Historical Academy and of the Geographical and Statistical Society.

NICARAGUA.

DÁMASO RIVAS, Chairman of the Delegation; Professor in the University of Pennsylvania.

PEDRO J. CUADRA, Ch., Ex-Member of the Chamber of Deputies.

PANAMA.

His Excellency Sr. EUSEBIO MORALES, Envoy Extraordinary and Minister Plenipotentiary to the United States; Chairman of the Delegation.

NARCISO GARAY, Director of the Conservatory of Music and Oratory of Panama; Officer of the Academy of the French Republic; Member of the Technical Council of Panama.

EDWIN LEFEVRE, Publicist.

NICOLÁS A. SOLANO, Member of the Canal Zone Medical Association, of the American Medical Association; Police and Prison Physician of the City of Panama; Ex-Vice Chairman of the Municipal Council of Panama.

RAMÓN N. VALDEZ, Former Minister to the United States, Belgium and Great Britain; Vice President of Panama; Deputy and Counselor to the Government of Panama; Member of the Permanent Court of Arbitration at The Hague.

PARAGUAY.

EUSEBIO AYALA, Chairman of the Delegation; Ex-Minister of the Treasury and of Foreign Relations; Professor of Political Economy; Delegate to the Board of Jurists of Rio de Janeiro; Vice President of the Mercantile Bank of Paraguay.

PEDRO BRUNO GUGGIARI, Director of the National College of Asuncion; Professor of Organic and Analytic Chemistry, National University; Member of the National Board of Industry and Agriculture.

PERU.

ISAAC ALZAMORA, Lawyer, Chairman of the Delegation; Former Dean of the Faculty of Philosophy and Literature, Universidad Mayor de San Marcos, Lima.

His Excellency Sr. FEDERICO A. PEZET, Envoy Extraordinary and Minister Plenipotentiary to the United States.

CARLOS MORALES MACEDO, Physician and Surgeon in the Faculty of Medicine, Universidad Mayor de San Marcos, Lima; Peruvian Delegate to the Seventh Pan American Medical Congress at San Francisco, Cal., 1915.

JULIO C. TELLO, Member of the American Anthropological Society.

SALVADOR.

His Excellency Sr. RAFAEL ZALDÍVAR, Envoy Extraordinary and Minister Plenipotentiary to the United States.

UNITED STATES.

GEORGE GRAY, Chairman of the Delegation; Member of the International Permanent Court of Arbitration.

JOHN BARRETT, Director General of the Pan American Union; Secretary General, Second Pan American Scientific Congress.

WILLIAM H. BIXBY, Brig. Gen. United States Army, Retired; Chairman of the Section on Engineering, Second Pan American Scientific Congress.

FRANZ BOAS, Professor of Anthropology, Columbia University.

JOHN A. BRASHEAR, President of the American Society of Mechanical Engineers; Director of the Alleghany Observatory; Chancellor of the University of Pittsburgh.

RICHARD C. CABOT, of the General Hospital of Boston; Professor in the Harvard Medical School.

WILLIAM WALLACE CAMPBELL, Director of the Lick Observatory; President of the American Association for the Advancement of Science.

PHILANDER P. CLAXTON, Commissioner of Education of the United States; Chairman Section on Education, Second Pan American Scientific Congress.

HENRY B. FINE, Dean of the Department of Science, Princeton University.

WILLIAM C. GORGAS, Surgeon General, United States Army; Chairman of the Section on Public Health and Medical Science, Second Pan American Scientific Congress.

HENRY S. GRAVES, Chief of the Forest Service of the United States.

WILLIAM H. HOLMES, Head Curator Smithsonian Institution; Chairman of the Section on Anthropology, Second Pan American Scientific Congress.

HENNEN JENNINGS, former President of the London Institution of Mining and Metallurgy; Chairman of the Section on Mining, Metallurgy, Economic Geology, and Applied Chemistry, Second Pan American Scientific Congress.

WILLIAM PHILLIPS, Third Assistant Secretary of State; Chairman ex officio of the Executive Committee, Second Pan American Scientific Congress.

GEORGE M. ROMMEL, Chief of the Animal Husbandry Division, Bureau of Animal Industry, Department of Agriculture; Chairman of the Section on Conservation of Natural Resources, Agriculture, Irrigation, and Forestry, Second Pan American Scientific Congress.

LEO S. ROWE, President of the American Academy of Political and Social Science; Professor of Political Science, University of Pennsylvania; Chairman of the Section on Transportation, Commerce, Finance, and Taxation, Second Pan American Scientific Congress.

JAMES BROWN SCOTT, President of the American Institute of International Law; Secretary of the Carnegie Endowment for International Peace; Reporter General, Vice Chairman of the Executive Committee, and Chairman of the Section on International Law, Public Law and Jurisprudence, Second Pan American Scientific Congress.

ALFRED P. THOM, General Counsel of the Southern Railway.

CHARLES D. WALCOTT, Secretary of the Smithsonian Institution.

WILLIAM H. WELCH, President of the National Academy of Science; Honorary Vice Chairman of the Executive Committee, Second Pan American Scientific Congress.

ROBERT S. WOODWARD, President of the Carnegie Institution of Washington; Chairman of the Section on Astronomy, Meteorology, and Seismology, Second Pan American Scientific Congress.

URUGUAY.

His Excellency Sr. CARLOS M. DE PENA, Envoy Extraordinary and Minister Plenipotentiary to the United States; Chairman of the Delegation.

CARLOS A. BELLIURE, Surgeon.

BERNARDO ETCHEPARE, Professor of Psychiatrics in the Faculty of Medicine, University of Montevideo.

JUSTO GONZÁLEZ, Surgeon; Professor of Hygiene and Bacteriology and Chief of the Laboratory of the Vilardebó Hospital.

JUAN MONTEVERDE, Professor in the National University of Montevideo; Vice Chairman of the Advisory Board, Department of Engineering.

ALFREDO PÉRSICO, Surgeon in the Faculty of Medicine of Montevideo; Ex-Chief of the Therapeutic Clinic; Professor in the Department of Secondary Education, University of Montevideo.

VENEZUELA.

His Excellency Sr. SANTOS A. DOMINICI, Envoy Extraordinary and Minister Plenipotentiary to the United States; Chairman of the Delegation.

JOSÉ L. ANDARA, Jurist; Internationalist.

RAFAEL GONZÁLEZ RINCONES, Professor of Anatomy in the Faculty of Medicine, University of Caracas; Ex-Director of the Board of Health; Senator of the Republic; Member of the Medical Academy of Caracas.

VICENTE LECUNA, Engineer; Director of the National School of Professions and Trades for Men; Member of the Historical Academy; President of the International High Commission of Venezuela; Director of the Bank of Venezuela.

MEMBERS OF THE CONGRESS.

The representatives of universities, institutions, associations, learned societies and other private organizations, and the specially invited scientists, scholars, and publicists enumerated in the lists attached hereto,[1] attended the Congress and participated in its proceedings.[2]

AIMS AND PURPOSES.

The Congress, in accordance with its high aims and purposes, namely, to increase the knowledge of things American, to disseminate and to make the culture of each American country the heritage of all American Republics, to further the advancement of science by disinterested cooperation, to promote industry, inter-American trade and commerce, and to devise the ways and means of mutual helpfulness in these and in other respects considered the following general program of subjects, divided into appropriate sections and subsections:

[1] See Appendix VII, p. 331. [2] See appendix IV, p. 167.

SECTION I.

ANTHROPOLOGY.

PHYSICAL ANTHROPOLOGY.

Origin of man and his place in the scheme of nature; problems of evolution, migration, geography, chronology. Development of the individual from the embryo through childhood to full maturity; involution of the individual, and death. The races, their differentiation, physical characteristics, fertility, physiology; admixtures, tendencies. Eugenics: proposed measures for physical betterment. Pathology: geographical distribution of disease, racial characteristics, effects on progeny and race. Origin: racial position and antiquity of the American aborigines; physical modifications due to modern changes in social, political, and industrial conditions; results of admixtures with other races. The racial element entering into the composition of the American peoples as a whole; progress and tendencies of amalgamation; possibilities of intelligent and effective direction of the processes; prospective results. Method of research, record, and display; anthropometric instruments.

ARCHAEOLOGY.

Progress of researches in Pan America and their bearing on the origin and history of peoples and cultures; chronology of man's occupancy of the continent; evidence supplied by material culture in all its branches; progress in deciphering the glyphic records; the calendar.

ETHNOLOGY.

Languages, social organization and customs generally of the various tribes; religion and folklore; arts, sciences, and trades; arts of embellishment.

HISTORY.

Literature of the native tribes; pre-Columbian Americana; archives of the Indies; systems of writing and record; Indian missions and ecclesiastical history; aboriginal populations; the passing of the Indian.

AGENCIES OF RESEARCH.

Anthropological sciences as encouraged and supported by the American governments. Museums of anthropology; their purposes, management, collections.

SECTION II.

ASTRONOMY, METEOROLOGY,, AND SEISMOLOGY.

ASTRONOMY.

Status of astronomical work at the principal observatories of South America; astronomical work at Lick Observatory and at Mount Wilson Solar Observatory; project for determining the flattening of the earth's surface by simultaneous observations of the moon from stations in North and South America.

GEODESY.

Project for the extension of an international net of primary triangulation covering all the countries from Patagonia to Alaska, including azimuth, latitude, longitude and gravimetric determination over the entire continent; detailed figures showing the costs in recent geodetic experience, of the fieldwork essential to the preceding project; present status of magnetic surveys in South America and the need especially of additional observatories there for determining the secular variations of the magnetic elements.

METEOROLOGY.

Meteorological data and ways and means of recording and using them; climatology and the application of available knowledge to agriculture, navigation and conservation of crop and forest resources; weather forecasts and desirability of additional international observations on which world weather maps may be based; secular meteorology, involving climatic changes, migrations of populations, alternations of arid and humid conditions over the same area, etc.; atmospheric electricity, solar radiation, cyclonic and magnetic storms.

SEISMOLOGY.

Physical bases of modern seismology and methods of observing and recording data; present status of the science and needs for further advances; organization and development of seismological services in various countries.

SECTION III.

CONSERVATION OF NATURAL RESOURCES, AGRICULTURE, IRRIGATION, AND FORESTRY.

THE ECONOMICS OF CONSERVATION AND THE RELATION OF THE GOVERNMENT THERETO.

The economic principles underlying a sound conservation policy; the economics of future trading in agricultural commodities; public conservation policies; the Government and the marketing problem; the conservation of human life.

THE CONSERVATION OF MINERAL RESOURCES.

Mine accidents, and mine-rescue work; the conservation of coal and other minerals, petroleum and gas; the conservation of metals by the use of scrap or used metals; improved mining and metallurgical methods as an aid to conservation; the rôle of Government in the conservation of mineral resources.

THE CONSERVATION OF FORESTS.

The forest resources and the forest botany of South America; forestry in the Philippine Islands; forest problems in the American countries; education in forestry; a national forest policy; the attitude of the Government in forest conservation.

THE CONSERVATION OF WATER FOR POWER.

The value of water power; the present status of water-power development; hydroelectric utilization of water power; electrochemical industries; public policies and legislation regarding the use of water and water power resources; public control of water-power resources.

IRRIGATION.

Irrigation development in the United States, Peru, and other American countries; the principles and practice of the use of water in irrigation; irrigation districts; securing settlers for irrigation projects; the use of irrigation waters as sources of power; the relation of riparian rights to the utilization of streams for irrigation; Government participation in irrigation and drainage development.

CONSERVATION OF THE ANIMAL INDUSTRY.

The function of live stock in agriculture; the rôle and importance of the live stock, dairy, and poultry industries in agricultural development; the relation between wool and mutton production in the

sheep industry of the American countries; Government control of grazing on public lands; the effect of animal diseases and parasites—their control and eradication; are uniform regulations feasible among the different American countries for the prevention of the introduction and dissemination of diseases of animals?

CONSERVATION OF THE PLANT INDUSTRY.

Experiment station work in the American countries; subtropical and tropical agriculture in the Americas; plant introduction; Pan American cooperation in plant quarantine.

MARKETING AND DISTRIBUTION OF AGRICULTURAL PRODUCTS.

The principles and practice of cooperation; extent and possibilities of cooperation; standardization of agricultural products; uniform grades and standard packages; transportation of perishable commodities; car-lot distribution; the marketing of farm mortgage loans; financing cooperative marketing associations; the extension of markets; the development of a market news service; the advisability of college courses in marketing and distribution; provisioning municipal populations; the Panama Canal—the effect of its opening upon the traffic in agricultural products and its effective use in the distribution of products in general.

SECTION IV.

EDUCATION.

The establishment, present status and future development of public and private education as carried on in the Republics of the Western Hemisphere; similarity, essential differences and the interrelation of the various types and grades of education among the constituent members of the Pan American Union; the possibility of Pan American correlation of subjects and standardization in subject and equipment which would permit interchange of professors and students between the American Republics; the emphasis in educational institutions upon subjects and methods of presentation of the same in order to encourage a Pan American point of view, Pan American cooperation and ideals of education; public and private support, administration and supervision, problems and purpose of the different grades of education, particularly in the elementary and secondary periods; coeducation and its problems and possibilities; the function, support and control of special schools established for the training of teachers and higher efficiency in the trades, industries, commerce, agriculture, and the technical and learned professions.

ELEMENTARY EDUCATION.

The determining factors of elementary education and the necessity for uniformity of practice throughout the Pan American Republics.

SECONDARY EDUCATION.

Public support of secondary education conditioned by the character and purpose of instruction given.

UNIVERSITY EDUCATION.

The various types of university education; the function of the State-supported university; the relation of the American university to public service and the work of governmental administration.

EDUCATION OF WOMEN.

The desirability, essential features and place of coeducation in the different grades of education as carried on in a democracy.

TECHNICAL EDUCATION.

Engineering education in its relation to education in general and to the different types of technical education in particular; the part that engineering education may play in the industrial and scientific development of a country; educational preparation for the teaching and practice of, and investigation in, the medical sciences; the special character of agricultural education, admission requirements for schools and colleges engaged in its teaching, and the necessary financial support for it; the importance of industrial education, its establishment through local, State, and Federal support and its coordination and cooperation with the various trades and industries; educational preparation for business, domestic and foreign, as carried on in the commercial nations of Pan America.

SECTION V.

ENGINEERING.

CIVIL ENGINEERING.

Engineering work in general.

Mountain railroad transportation development; uniform gauge for railways throughout North, Central, and South America; public roads, highways, streets and pavements.

Improvement of river mouths; development of river navigation; open channel work; canals; bridges, long-span, bascule, vertical, lift, fixed submergible; harbor and port terminals, including piers and quays on deep-water fronts.

Concrete under exposure in salt and fresh waters; soils as regards pressures thereon; and protection of sandy seacoast shores against erosion.

MARINE ENGINEERING.

Coast guards, lighthouses, light vessels, fog signals, buoys; governmental and merchant marine; shallow draft boats and barges; including hydroplanes for freight and passenger service.

AERONAUTICS.

Airships to join Pan American States.

ELECTRICAL ENGINEERING.

Electrical codes and standards, including acceptance tests of electrical apparatus; electric current and flow; calculation and construction of electric-transmission lines; electrification of transportation lines; aluminum conductors, and underground cables.

Hydroelectric utilization of waterfalls.

Electrochemical and industrial applications of electricity.

Recent telegraphic and telephonic developments, including radio-telegraphy.

RECLAMATION, SANITATION, AND THE SUPPLY AND USE OF WATER.

Governmental and private reclamation work in North and South America; irrigation and drainage, including the use of irrigation waters as sources of power; sanitary engineering, including sewage, street cleaning and refuse disposal, municipal water supply; laws governing use of running water and waterfalls and the construction work and present status of water powers in North and South America.

MECHANICAL ENGINEERING.

The gyroscope applied to aerial and water navigation; chronocyclegraph motion-recording devices; agricultural implements and machinery; overhead conveyors or transporters in port terminals and warehouses; and the economy of steam-power plants, using Pan American fuels.

NOMENCLATURE, STANDARDS, SURVEYS, BUILDING, MATHEMATICS, AND MISCELLANEOUS.

Engineering nomenclature; governmental Bureau of Standards; governmental and private geodetical, geographic, hydrographic, and geological work.

Governmental work of public buildings and grounds in the United States of America; new properties of involution of conic sections; new methods of diagonal notation.

SECTION VI.

INTERNATIONAL LAW, PUBLIC LAW, AND JURISPRUDENCE.

INTERNATIONAL LAW.

The relation of international law to national law in American countries; the study of international law in American countries and the means by which it may be made more effective.

How can the people of the American countries best be impressed with the duties and responsibilities of the State in international law? Are there specific American problems of international law?

The attitude of American countries toward international arbitration and the peaceful settlement of international disputes.

Should international law be codified, and if so, should it be done through governmental agencies or by private scientific societies?

Mission of the American Institute of International Law.

Pan Americanism in the light of the traditional International Policy of Argentina.

PUBLIC LAW.

The relation of public law to international law; the historical evolution of public law; public law as affecting legal procedure in civil causes.

The effect of American public law on our written constitutions.

a. In their bearing on the sovereignty of the State.

b. Constitutional provisions making treaties law.

Is there an American public law that can be differentiated from that of other continents?

The power of the President to dictate by-laws and regulations; presidential and parliamentary government on the American continent in State and Nation.

Criminal law and procedure with special reference to the scope and limits of jury trials and the several theories for the punishment of criminals, and differences between the criminal procedures of States following the civil law and those following the common law.

JURISPRUDENCE.

Recent law reforms in the United States of America; the extra-territorial effect of criminal statutes; the International assimilation of law—its need and its possibilities from the American standpoint; judicial organization with special reference to the nomination or election of judges; organization and functions of the minor judiciary; how lawyers of one country may be more easily and effectively made acquainted with the laws of another country; a study in Mexican law.

SECTION VII.

MINING, METALLURGY, ECONOMIC GEOLOGY, AND APPLIED CHEMISTRY.

MINING.

Mining, the pioneer of intimate commercial relations between the Pan American countries; the mineral production of Latin America; the value of technical societies and the work of the American Mining Congress, and the United States Bureau of Mines; mining operations and methods in Argentina, Chile, Cuba, Ecuador, Guatemala, and United States; mining costs, and mine accidents; the conservation of coal, oil, and gas resources of the Americas; the valuation of mining property and the standardization of the mining laws of Pan American countries.

METALLURGY.

Metallurgical operations and processes in Brazil, Chile, Mexico, and Peru; ore dressing; the electrical furnace in metallurgy, and recent progress in electrical smoke precipitation; the occurrence and preparation of radium and associated metals; the conservation of metals; the buying and selling of South American ores.

GEOLOGY.

The public interest in mineral resources, and the organization and cost of geological surveys; the coals of Brazil and the United States; the fuel situation in the Andean Plateau; Bolivian tin deposits and general geology of Argentina, Brazil, Colombia, Ecuador, Peru, and Salvador; phosphate resources and the conservation of phosphate rock; iron-ore deposits of the Americas; the mineral resources of the Pan American countries with special reference to petroleum.

CHEMISTRY.

The nitrate industry of Chile; the preservation of foodstuffs and functions of foods in securing national efficiency; water purification and sewage disposal; the interrelations of pure and applied chemistry; chemical research work and uniform methods of analysis.

Explosives; tanning materials; dye stuffs; drying oils; paints for tropical climates; pharmaceutical products, and the manufacture of gasolene.

SECTION VIII.

PUBLIC HEALTH AND MEDICAL SCIENCE.

PUBLIC HEALTH.

Infectious diseases—the bearing of their modes of infection on methods of control; nutritional diseases—their public health bearing, with special reference to beriberi and pellagra; reduction of infant mortality.

VITAL STATISTICS.

Sickness (morbidity) reports; birth and death registration.

SOCIOLOGICAL MEDICINE.

Relation of the individual to the community; ways and means of bringing matters of public health to social usefulness; public health measures—industrial hygiene and sanitation; venereal prophylaxis, alcohol and drug prophylaxis; tuberculosis; mental hygiene.

SANITATION.

Town and city planning: buildings for human occupancy; food and water supply; ventilation; disposal of refuse.

LABORATORY CONFERENCES.

Symposia on anaphylaxis, life histories of protozoa, and cancer research.

PAN AMERICAN TOPICS.

Progress of vital statistics in the Pan-American countries; etiology and prevention of tuberculosis from the sociological standpoint.

SECTION IX.

TRANSPORTATION, COMMERCE, FINANCE, AND TAXATION.

TRANSPORTATION.

The regulation of public utilities. The improvement of transportation facilities by means of—inland waterways, motor railroad cars and motor-driven vehicles, aeroplanes, and air-propelled gliding boats.

COMMERCE.

Feasibility of establishing uniform methods, documents, statistics, port charges, administrative regulations, and classifications in international trade between the North, Central, and South American countries; the effects of the European war upon the commerce of

the American Republics; possibility of standardizing commercial and census statistics in the American Republics; reviews of the natural resources, commercial and economic development of several of the South and Central American Republics; reciprocity in patent practice; possibility of ratifying the Buenos Aires Trade-Mark Convention of August 20, 1910.

FINANCE.

The investment of foreign capital; extension of credits; possibility of establishing a common monetary unit as between the Republics of America; effects of the European war upon the finances of the Latin American countries; quotation of Latin American municipal and State bonds in United States markets and exchanges.

TAXATION.

The scientific study of taxation systems; desirability of establishing other revenue-producing taxes than those based on the consumption of alcoholic beverages.

RESOLUTIONS AND RECOMMENDATIONS.

The Second Pan American Scientific Congress considered and discussed the subjects set forth in its program in the light of an intellectual Pan Americanism in a series of meetings from December 27, 1915, to January 8, 1916, and adopted the resolutions and recommendations enumerated and embodied in this Final Act of its labors.

ARTICLE 1.

The Second Pan American Scientific Congress considers that—

It is highly desirable that the American Republics arrange for the appointment of delegates for joint action in the matter of archaeological exploration, in order to formulate and to propose generally acceptable and substantially uniform laws relating to the survey, exploration, and study of archaeological remains to be found in the Republics, and to secure the enactment of laws which will effectively safeguard these remains from wanton destruction or exploitation and which will serve to aid and to stimulate properly organized and accredited research in archaeology.

ARTICLE 2.

The Second Pan American Scientific Congress requests—

The Government of the United States to bring to the attention of the Governments of the American Republics participating in the Congress and, through their respective Governments, to the institutions and the public thereof, the importance of promoting research in the field of archaeology, organized surveys for the study of primitive tribes, and the building of national educational museums for the preservation of the data and materials collected.

ARTICLE 3.

The Second Pan American Scientific Congress recommends that the American Republics undertake as soon as practicable—

(*a*) Accurate geodetic measurements which may serve to determine limits, national and international, and to contribute to the discovery of the true shape of our planet;

(*b*) Magnetic measurements of their respective areas, and the establishment of several permanent magnetic observatories in which it may be possible to carry on during long periods of time observations concerning the secular variation of the magnetic elements of the earth;

(*c*) To extend their gravimetric measures, obtained by means of the pendulum, to those regions where such measurements have not been undertaken, in order to obtain more information to determine the true shape of the surface and the distribution of the terrestrial mass.

ARTICLE 4.

The Second Pan American Scientific Congress recommends that—

The Nations of the American Continent establish, by means of their offices of geodesy or by committees appointed for that purpose, an international triangulation;

The Governments of the American Nations reach an agreement for the purpose of creating an office or congress of cartography and geography.

ARTICLE 5.

The Second Pan American Scientific Congress recommends that—

Proper steps and measures be taken to bring about in the American Republics a general use of the metric system of weights and measures, in the press, magazines, newspapers, and periodicals, in educational and scientific work, in the industries, in commerce, in transportation, and in all the activities of the different Governments.

ARTICLE 6.

The Second Pan American Scientific Congress—

Confirms the resolution recommended to the American Republics by the First Pan American Scientific Congress regarding the installation of meteorological organizations to serve as a basis for the establishment of a Pan American meteorological service, and expresses the desire that the Republics not yet possessing organized meteorological services establish such as soon as may be practicable.

ARTICLE 7.

The Second Pan American Scientific Congress recommends that—

There be appointed an international Pan American committee to study and report upon the question of establishing such a uniform railway gauge as will best serve the countries' interest, their international communication, and the communication between all the countries of America.

ARTICLE 8.

The Second Pan American Scientific Congress recommends—

The appointment of an American committee on radio communication to assist in the development of the science and art of radio communication, to the end that it may serve to convey intelligence over long distances and between ships at sea more quickly and accurately, and to bring into closer contact all of the American Republics.

ARTICLE 9.

The Second Pan American Scientific Congress recommends that—

A cooperative study of forest conditions and of forest utilization be undertaken by governmental agencies of the American Republics and that data thereon be published.

ARTICLE 10.

The Second Pan American Scientific Congress recommends that—

Each of the American Republics appoint a commission to investigate and study in their respective countries the existing laws and regulations affecting—

(*a*) The administrative practice of regulating the use of water;

(*b*) The adjudication of rights pertaining to the use of surface and underground water for irrigation purposes;

(*c*) The distribution, application, and use of water upon arid and irrigable lands;

(*d*) Methods of conservation of surface and underground waters for irrigation or industrial purposes;

And to suggest laws or regulations in the interest of general industry, navigation, and commerce.

ARTICLE 11.

The Second Pan American Scientific Congress suggests that—

The question of the reclamation of arid lands is one that should receive immediate and careful consideration of the Governments of the American Republics, to the end that there may be increased areas of productive lands to meet the needs of their increasing populations.

ARTICLE 12.

The Second Pan American Scientific Congress recommends that—

(*a*) Each country should maintain a well-organized and competent live-stock sanitary service comprising executive officers, field inspectors, and a laboratory force;

(*b*) Each country should enforce live-stock sanitary laws and regulations with the view of preventing the exportation, importation, and spread within the country of any infectious, contagious, or communicable animal disease by means of animals, animal products, ships, cars, forage, etc.;

(*c*) Each country should maintain a thorough live-stock sanitary survey to determine what communicable diseases of animals are present and the localities where they exist. This information should be furnished regularly to each of the other countries at stated periods as a matter of routine;

(*d*) Each country should refrain from exporting animals, animal products, forage, and similar materials which are capable of conveying infectious, contagious, or communicable animal diseases to the receiving country;

(*e*) Each country should enforce measures to prohibit the importation of animals, animal products, forage, and other materials which may convey diseases from countries where dangerous communicable diseases, such as rinderpest, foot-and-mouth disease, and contagious pleuropneumonia exist, and which have no competent live-stock sanitary service. Animals, animal products, forage, and similar materials from countries maintaining a competent live-stock sanitary service may be admitted under proper restrictions, regulations, and inspection, imposed by the importing country;

(*f*) Each country, through its live-stock sanitary service, should endeavor to control, and, if possible, eradicate the communicable animal diseases existing therein. There should be an exchange of information as to the methods followed which have proved most successful in combating animal diseases;

(*g*) Members of the live-stock sanitary service of the American Republics should meet at regular intervals to consult and inform each other regarding the measures taken for furthering cooperation in protecting the live-stock industry of the American countries.

ARTICLE 13.

The Second Pan American Scientific Congress suggests that—

An American Plant Protection Congress be convened as soon as practicable, composed of one or more technical experts from each of the American Republics, in order—

(1) To discuss suitable legislation;

(2) To provide the means of establishing competent scientific bureaus;

(3) To recommend such cooperative research work and control of plant introduction as may be advisable; and

(4) To make all reasonable effort to secure appropriate action by the American Republics.

ARTICLE 14.

The Second Pan American Scientific Congress recommends—

The distribution of information regarding the agricultural production of the American Republics and of the publications relating thereto.

ARTICLE 15.

The Second Pan American Scientific Congress believes it to be important that—

The achievements and influence of the founders of the independence of the American Republics be made known to the peoples thereof, and that the important details of the lives of the liberators and statesmen of the continent be included in courses of study in schools of the American Republics.

ARTICLE 16.

The Second Pan American Scientific Congress recommends that—

There be established in the universities of the United States chairs of the history, development, and ideals of the Latin-American peoples, and in the universities of Latin America chairs of the history, development, and ideals of the people of the United States.

ARTICLE 17.

The Second Pan American Scientific Congress urgently recommends that—

Spanish be taught more generally in the schools, colleges, and universities of the United States and that English be taught more generally in the educational institutions of the Latin-American Republics, and that both languages be taught from the point of view of American life, literature, history, and social institutions.

ARTICLE 18.

The Second Pan American Scientific Congress recommends that—

The study of sociology in American universities where it is not at present taught be inaugurated.

ARTICLE 19.

The Second Pan American Scientific Congress petitions—

The Governments of the American Republics to further the interchange of educators of all grades, and of students of university, normal, and technical training, and to encourage both to make visits of instruction to other American countries.

ARTICLE 20.

The Second Pan American Scientific Congress suggests that—

The presidents of the leading architectural societies of this hemisphere shall be requested to communicate with one another for the purpose of forming a Pan American federation of architectural societies.

Such federation should hold conferences in different countries at stated periods.

ARTICLE 21.

The Second Pan American Scientific Congress recommends that—

There be published a series of volumes entitled the "Pan American Library," with the object of popularizing, in the several languages spoken on the continent, the best scientific, literary, and artistic works of American authors.

ARTICLE 22.

The Second Pan American Scientific Congress, confirming the resolution adopted at the First Pan American Scientific Congress of 1908–9, recommends the organization in connection with the Pan American Union of a department of education, which shall—

(*a*) Be entrusted with the publication, in Spanish, Portuguese, French, and English, of such works on education as are of importance to the American countries;

(*b*) Keep the different Republics in touch with educational progress;

(*c*) Promote in each country the scientific study of educational problems from both national and American standpoints;

(*d*) Facilitate the interchange of ideas and information among the teachers of the continent, and in general serve the educational interests of the Americas.

ARTICLE 23.

The Second Pan American Scientific Congress recommends, in order to increase the study of international law, to popularize its just principles, and to secure its observance and application in the mutual relations of the Americas, that steps be taken to improve and to enlarge library and reference facilities—

(*a*) By preparing and publishing a bibliography of international law and related subjects, furnishing the names of publishers and prices, so far as these are obtainable, with special reference to the needs of poorly endowed libraries;

(*b*) By preparing and publishing a carefully prepared index or digest of the various heads and subheads of international law, with references to standard sources of authority under each head and subhead thereof;

(*c*) By collecting with the aid, wherever possible, of ministries of foreign affairs and publishing from official copies thus secured, in cheap and convenient form, all official documents, both foreign and domestic, bearing upon international law, including therein treaties, information relating to arbitration, announcements of national policy, and diplomatic correspondence;

(*d*) By issuing in the form of law reports judgments of national courts involving questions of international law, the sentences of arbitral tribunals, and the awards of mixed commissions.

ARTICLE 24.

The Second Pan American Scientific Congress is of the firm conviction that, as the idea of direct government by the people grows, it becomes increasingly essential to the well-being of the world that the leaders of opinion in each community be familiar with the duties and obligations as well as with the rights of States, as recognized in international law, and that it has become a patriotic duty resting upon our educational institutions to give as thorough and as extensive courses as possible in international law and related subjects. The Congress therefore recommends—

I. That steps be taken to extend the study of the subject—

(*a*) By increasing the number of schools and institutions in which international law and related subjects are taught;

(*b*) By increasing the number of students in attendance upon the courses; and

(*c*) By diffusing a knowledge of its principles in each American Republic.

II. That a course in international law, where possible, should consist of systematic instruction during at least a full academic year, divided between international law and diplomacy; and

III. That prominent experts in international law and diplomacy be invited from time to time to lecture upon these subjects in the institutions of learning of the American Republics.

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ARTICLE 25.

The Second Pan American Scientific Congress, in order to place instruction in international law upon a more uniform and scientific basis, recommends that—

(*a*) In the teaching of international law emphasis be laid upon the positive nature of the subject and the definiteness of the rules, for whether the teaching of international law be regarded as of value as a disciplinary subject or from the standpoint of its importance in giving to the student a grasp of the rules that govern the relations of nations, it is equally important that he have impressed upon his mind the definiteness and positive character of the rules of international law; that the teaching of international law be not made the occasion for a universal peace propaganda; that the interests of the students in and their enthusiasm for the subject can best be aroused by impressing upon them the evolutionary character of the rules of international law, for through such a presentation of the subject the student will not fail to see that the development of positive rules of law governing the relations of States has contributed toward the maintenance of peace.

(*b*) In order to emphasize the positive character of international law the widest possible use be made of cases and the concrete facts of international experience, for the interest of students can best be aroused when they are convinced that they are dealing with such concrete facts, and that the marshaling of such facts in such a way as to develop or illustrate general principles lends dignity to the subject, which can not help but have a stimulating influence; that international law should be constantly illustrated from the sources recognized as ultimate authority, such as cases both of judicial and arbitral determination; treaties, protocols, acts, and declarations of epoch-making congresses, such as Westphalia (1648), Vienna (1815). Paris (1856), The Hague (1899 and 1907), and London (1909); diplomatic incidents ranking as precedents for action of an international character; and the great classics of international law.

(*c*) In the teaching of international law care be exercised to distinguish the accepted rules of international law from questions of international policy.

(*d*) In a general course on international law the experience of no one country be allowed to assume a consequence out of proportion to the strictly international principles it may illustrate.

ARTICLE 26.

The Second Pan American Scientific Congress, in order still further to advance the cause of international law and the development of international justice, recommends that—

A major in international law in a university course, leading to the degree of doctor of philosophy, be followed if possible by residence at The Hague in attendance upon the Academy of International Law, installed in 1914 in the Peace Palace in that city; and that, as no better means has been devised for affording a just appreciation of the diverse and conflicting national views concerning international law or for developing that "international mind" which is so essential in a teacher of that subject, as many fellowships as possible should be established in the Academy at The Hague and put at the disposition of advanced students of international law in the different American Republics.

ARTICLE 27.

The Second Pan American Scientific Congress expresses the opinion that—

The present development of higher education in the American Republics and the place which they have now assumed in the affairs of the society of nations justify and demand that the study of the science and historic applications of international law be treated on a plane of equality with other subjects in the curriculum of colleges and universities, and that professorships or departments devoted to its study be established where they do not exist in every institution of higher learning.

ARTICLE 28.

The Second Pan American Scientific Congress, recognizing the growing importance of a knowledge of international law to all persons who intend to devote themselves to the administration of justice, and who, through their professional occupation, may contribute largely to the formation of public opinion and who may often be vested with the highest offices in the State and nation, earnestly requests all law schools which now offer no instruction in international law to add to their curriculum a thorough course in that subject.

ARTICLE 29.

The Second Pan American Scientific Congress regards it as highly desirable, upon the initiative of institutions where instruction in international law is lacking, to take steps toward providing such instruction by visiting professors or lecturers, this instruction to be given in courses, and not in single lectures, upon substantive principles, not upon popular questions of momentary interest, and in a scientific spirit, not in the interest of any propaganda.

ARTICLE 30.

The Second Pan American Scientific Congress recommends—

The establishment and encouragement in institutions of specialized courses in preparation for the diplomatic and consular services.

ARTICLE 31.

The Second Pan American Scientific Congress advises—

That the study of international law be required in specialized courses in preparation for business.

ARTICLE 32.

The Second Pan American Scientific Congress urges—

That in the study and teaching of international law in American institutions of learning special stress be laid upon problems affecting the American Republics and upon doctrines of American origin.

ARTICLE 33.

The Second Pan American Scientific Congress extends to the American Institute of International Law a cordial welcome into the circles of scientific organizations of Pan America, and records a sincere wish for its successful career and the achievement of the highest aims of its important labors.

ARTICLE 34.

The Second Pan American Scientific Congress recommends to all educational establishments of America the special study of the constitutions, laws, and institutions of the Republics of this continent.

ARTICLE 35.

The Second Pan American Scientific Congress recommends to the various universities of the American Republics that a comparative study of judicial institutions be undertaken in order—

(*a*) To create special interest therein in the several countries of the continent;

(*b*) To facilitate the knowledge and solution of problems of private international law in the American countries; and

(*c*) To bring about as far as possible uniformity in jurisprudence and legislation.

ARTICLE 36.

The Second Pan American Scientific Congress, in order to broaden the outlook and to bring into closer contact the members of the legal profession, urges that the bar association exchange among themselves—

(*a*) Law books and publications affecting the legal profession and the practice of law;

(*b*) New codes of law and rules of procedure as they are hereafter published.

ARTICLE 37.

The Second Pan American Scientific Congress recommends that—

(*a*) A compilation be made, according to a definite plan, of the mining laws of the American Republics, not only in their original languages but also in Spanish, Portuguese, French, and English translations, as the case may be, with a view to the reciprocal improvement of the laws of each of the American Republics;

(*b*) The several American Governments appoint a committee to consider the uniformity of mining statistics and to make recommendations to their respective Governments in order to systematize, simplify, and standardize such statistics.

ARTICLE 38.

The Second Pan American Scientific Congress suggests that—

It is desirable to establish institutions for the study of drugs and other economic plants at their place of origin.

ARTICLE 39.

The Second Pan American Scientific Congress, recognizing that the education of the public in the elementary facts of malaria is of the utmost importance, requests that—

The American Republics inaugurate a well-considered plan of malaria eradication, based upon the recognition of the principle that the disease is preventable to a much larger degree than has thus far been achieved.

ARTICLE 40.

The Second Pan American Scientific Congress urges that—

The American Republics in which yellow fever prevails or is suspected of prevailing enact such laws for its eradication as will best accomplish that result;

Inasmuch as yellow fever exists in some of the European colonies in America, they be invited to adopt measures for its elimination.

ARTICLE 41.

The Second Pan American Scientific Congress recommends that—

Such of the American Republics as have not already done so should justify the international conventions concerning the white-slave trade.

ARTICLE 42.

The Second Pan American Scientific Congress recommends that—

There be established throughout the American Republics uniform methods in the presentation of statistics, in the classification of merchandise and in the manufacture thereof, in the standard of weights, measurements, and tests, in nomenclature and specifications, in administrative customs regulations, and in the schedules of port charges;

Provision be made for the collection and study of the data thus made available, through some organization which will assure a thorough and scientific comparative study of the questions involved.

ARTICLE 43.

The Second Pan American Scientific Congress deems it advisable that—

The American Republics agree upon a uniform date for the taking of the census, and that uniform methods be adopted in the collection, arrangement, and presentation of commercial and demographic statistics.

ARTICLE 44.

The Second Pan American Scientific Congress is of the opinion that—

It is highly desirable to make a scientific study of the systems of taxation existing in the different American Republics.

ARTICLE 45.

The Second Pan American Scientific Congress urges that—

The American Governments, deriving important revenues from the consumption of alcohol, organize their systems of taxation in such manner that their economic interests be subordinated to the higher interests of a social and moral order, which tend to the suppression of alcoholism.

ARTICLE 46.

The Second Pan American Scientific Congress deems it desirable—

That the monetary systems of the American Republics be subjected to careful scientific study, with a view to making the experience of each available to all.

ARTICLE 47.

The Second Pan American Scientific Congress especially and earnestly recommends, in order to unite the various technical, medical, legal, and other scientific associations of the American Republics—

The establishment of a Pan American Intellectual Union, to be divided into such groups and sections as may be deemed convenient or advisable, the details whereof are contained in the records of the Congress and in the form of four propositions devoted to the proposed Union, which may, in the opinion of the Congress, be carried into effect either through the instrumentality of the Pan American Union or by means

of some other existing agency or institution to be created, in the confident belief that the establishment of such a Union will lay broad and deep the true foundations of intellectual Pan Americanism.

ARTICLE 48.

The Second Pan American Scientific Congress, upon the motion of the delegation of Chile, unanimously resolves that—

The Third Pan American Scientific Congress shall meet in the city of Lima in connection with the celebration of the anniversary of the independence of Peru, in 1921, and appoints for that purpose the following gentlemen: Dr. JAVIER PRADO Y UGARTECHE, rector of the University of San Marcos, Lima; Dr. MANUEL VICENTE VILLARÁN, Lima; and Dr. ALEJANDRO DEUSTUA, Lima, to constitute the Committee for the organization of the Third Pan American Scientific Congress.

ARTICLE 49.

Finally, the Second Pan American Scientific Congress requests—

The Government of the United States to transmit the foregoing resolutions and recommendations contained in the Final Act to the Governments of the American Republics participating in the Congress, and suggests that any Government thereof specially interested in one or other of the resolutions or recommendations take the initiative to carry the same into effect.

IN FAITH WHEREOF, The undersigned official delegates, duly authorized by their respective Governments, have hereunto affixed their hands and seals in the city of Washington, in the United States of America, on the eighth day of January in the year of our Lord one thousand nine hundred and sixteen.

For the Congress:	EDUARDO SUÁREZ MUJICA, *President.* JOHN BARRETT, *Secretary General.* JAMES BROWN SCOTT, *Reporter General.*
For Argentina:	ERNESTO QUESADA.
For Brazil:	DOMICIO DA GAMA.
For Chile:	JULIO PHILIPPI.
For Colombia:	ROBERTO ANCÍZAR.
For Costa Rica:	EDUARDO J. PINTO.
For Cuba:	CARLOS MANUEL DE CÉSPEDES.
For the Dominican Republic:	A. PÉREZ PERDOMO.
For Ecuador:	GONZALO S. CÓRDOVA.
For Guatemala:	JOAQUÍN MÉNDEZ.
For Haiti:	CHARLES MATHON.
For Honduras:	CARLOS ALBERTO UCLÉS.
For Mexico:	M. GAMIO.
For Nicaragua:	D. RIVAS.
For Panama:	EUSEBIO MORALES.
For Paraguay:	EUSEBIO AYALA.
For Peru:	F. A. PEZET.
For Salvador:	R. ZALDÍVAR.
For the United States of America:	GEORGE GRAY.
For Uruguay:	CARLOS M. DE PENA.
For Venezuela:	SANTOS A. DOMINICI.

GENERAL REPORT

UPON THE

FINAL ACT.

Prepared by Mr. JAMES BROWN SCOTT, Reporter General, in behalf and in the name of the Executive Committee of the Second Pan American Scientific Congress.

The Executive Committee of the Congress was composed of the following: His Excellency Sr. EDUARDO SUÁREZ MUJICA, *President;* JOHN BARRETT, *Secretary General;* JAMES BROWN SCOTT, *Reporter General;* GLEN LEVIN SWIGGETT, *Assistant Secretary General;* HENRY RALPH RINGE, *Recording Secretary; Argentina,* ERNESTO QUESADA; *Bolivia,* ALBERTO GUTIÉRREZ; *Brazil,* DOMICIO DA GAMA; *Chile,* JULIO PHILIPPI; *Colombia,* CARLOS CUERVO MÁRQUEZ; *Costa Rica,* EDUARDO J. PINTO; *Cuba,* CARLOS MANUEL DE CÉSPEDES; *Dominican Republic,* CARLOS ARMANDO PERDOMO; *Ecuador,* VICTOR MANUEL PEÑAHERRERA; *Guatemala,* JOAQUÍN MÉNDEZ; *Haiti,* CHARLES MATHON; *Honduras,* CARLOS ALBERTO UCLÉS; *Mexico,* MANUEL GAMIO; *Nicaragua,* DÁMASO RIVAS; *Panama,* EUSEBIO MORALES; *Paraguay,* EUSEBIO AYALA; *Perú,* ALEJANDRO DEUSTUA; *Salvador,* RAFAEL ZALDÍVAR; *United States of America,* GEORGE GRAY; *Uruguay,* CARLOS MARÍA DE PENA; *Venezuela,* JOSÉ L. ANDARA.

Pursuant to a recommendation of the First Pan American Scientific Congress, which met at Santiago, Chile, December 25, 1908–January 5, 1909, that the next Congress should be held in the United States, the Second Pan American Scientific Congress convened in the city of Washington on the 27th day of December, 1915, and remained in session until the 8th day of January, 1916, when it adjourned after having completed its arduous and its valuable labors.[1]

It would seem from the name that the Second Congress had had but one predecessor, but this, while technically true, is not the case in point of fact. And yet in a certain sense it may be called the first, because its immediate predecessor, which met in Chile, was in the nature of an experiment, which succeeded so admirably that another Congress, which it is hoped will be a link in an endless chain, was determined upon to meet in the Capital of the United States.

The Congress that met at Santiago was not the first scientific body in which the republics to the south of the United States were represented. It was, however, the first in which the United States was asked to participate. One had met in Buenos Aires in 1898, a second at Montevideo in 1901, and a third four years later at Rio de Janeiro. But the United

[1] See Appendix III, p. 163.

States, its institutions of learning, its scientific associations, its scientists, were not invited. This does not mean, in any sense of the word, that the United States was overlooked; its omission was due rather to the fact that the Congresses above mentioned were meetings of Latin American scholars; that they were in the nature of experiments, and that the United States was not officially invited to participate until it was seen whether the experiments were likely to prove successful. The experience, however, already had with the three Latin American Congresses convinced the authorities of the participating Republics of the usefulness and of the importance of such gatherings to the American continent. The United States was therefore invited to attend the Congress in Chile and the Government thereof gladly accepted the invitation.

The Second Pan American Scientific Congress, which met at Washington on the 27th of December, 1915, and adjourned on the 8th of January, 1916, was an official as well as an unofficial body. From the official standpoint it was a conference called by the Government of the United States, and in which each of the twenty-one American Republics was represented by delegates of its own selection. It will be observed that the Final Act resulting from the labors of the Congress was signed only by duly authorized official delegates, as it was only the latter who represented and therefore could bind their Governments by their signatures. The delegates, however, selected by the Governments were chosen with a view to their fitness to participate in a scientific conference, and they therefore represented, at one and the same time, not merely their individual Governments but the broader domain of science.

The leading universities, institutions, associations, societies, and scientific bodies of all the Americas were asked to participate and many of them sent distinguished representatives to take part in the proceedings of the Congress;[1] private persons of distinction in the Americas were also invited, with the approval of their respective Governments; and, finally, some Americans prominent in the field of science were invited to be honorary members of the Congress.[2]

What was the purpose of this Congress, that Governments and institutions should be asked to send delegates and that men of light and learning should leave their homes in order to spend a day, as it were, in the city of Washington? The preamble states the purpose to be to bring—

> into close and intimate contact the leaders of scientific thought and of public opinion in the American Republics, to the end that by an exchange of views results might be reached of service to the peoples of the American Continent and that by personal intercourse foundations would be laid for friendly and harmonious cooperation in the future.

[1] See Appendix V, p. 293.

[2] See Appendix VII, p. 331.

The desire, it would seem, was not merely to have official and other representatives meet and read papers to their mutual delight and edification, although the discussion of the topics contained in the program by persons of admitted authority and competence in the matters discussed would no doubt have justified the conference. The indirect results, or what may be called the by-products of a Congress, are something more than the advancement of knowledge, for by an exchange of views its members are brought into close and intimate contact and learn to respect their associates as they never would have learned to respect them had they not come together in a Congress; and as a result of this contact and personal intercourse foundations are laid for friendly and harmonious cooperation. The preamble further states the aims and purposes of the Congress to be—

> to increase the knowledge of things American, to disseminate and to make the culture of each American country the heritage of all American Republics, to further the advancement of science by disinterested cooperation, to promote industry, inter-American trade and commerce, and to devise the ways and means of mutual helpfulness in these and in other respects.

Therefore, laying aside the direct scientific and practical results of the Congress—and they are valuable in themselves and are destined to render services of no mean order to the Americas as a whole—the mere meeting of this Congress will be not only of inestimable advantage to the succeeding Congress but it will also be a genuine service to the peoples of the different countries, by strengthening friendly feelings where they exist and by creating them where they do not exist; by laying the foundations of good understanding and by inspiring a willingness and inducing a desire to cooperate in advancing not merely science but the good relations of their respective countries.

Passing now to the organization of the Congress, it should be said that it was in charge of an Executive Committee of twelve citizens of the United States, of which the nucleus was appointed by the First Congress at Santiago and enlarged by members selected by the nucleus. The original members of this committee were:

LEO S. ROWE.
The Director of the Bureau of the American Republics (Pan American Union).
The Commissioner of Education of the United States.
WILLIAM H. HOLMES.
GEORGE M. ROMMEL.

As finally made up, the committee was composed of the following gentlemen:

WILLIAM PHILLIPS, Third Assistant Secretary of State, *Chairman.*

JAMES BROWN SCOTT, Secretary, Carnegie Endowment for International Peace, *Vice Chairman.*

WILLIAM H. WELCH, President, National Academy of Science, *Honorary Vice Chairman.*

JOHN BARRETT, Director General, Pan American Union.

W. H. BIXBY, Brigadier General, United States Army, retired.

PHILANDER P. CLAXTON, Commissioner of Education.

WILLIAM C. GORGAS, Surgeon General, United States Army.

WILLIAM H. HOLMES, Head Curator, Smithsonian Institution.

HENNEN JENNINGS, Former President, London Institution of Mining and Metallurgy.

GEORGE M. ROMMEL, Chief, Animal Husbandry Division, Bureau of Animal Industry, Department of Agriculture.

LEO S. ROWE, President, American Academy of Political and Social Science.

ROBERT S. WOODWARD, President, Carnegie Institution of Washington.

Executive officers:

JOHN BARRETT, Secretary General.

GLEN LEVIN SWIGGETT, Assistant Secretary General.

The members of the committee, thus enlarged, drew up articles of organization and rules[1] based upon the experience of the First Congress held at Santiago and, it is believed, in general conformity with their letter and spirit. According to Article 2 thereof—

> the organization and procedure of the Second Congress shall be in charge of an Executive Committee, composed of, first, members appointed by the First Congress at Santiago; second, of members elected by the said committee.

By the third article the Executive Committee was authorized to nominate the officers of the Congress, and by the fifth article the duties of the committee were thus defined:

> 1. To arrange for the Second Congress and participation by the Government of the United States, the universities, and other scientific, national and foreign corporations.
>
> 2. To take steps to secure the appointment of committees at the capitals of the American States by the participating governments, the duties of

[1] See Appendix I, p. 155.

which committees shall be to cooperate in the preparations for the Congress;[1] to prepare lists of the persons to be invited to participate in its proceedings; to procure an adequate representation from the several countries, and to suggest such questions as, because of their evident American interest, should be submitted to the Congress.[2]

3. To prepare a list of members of the Congress in conformity with the provisions of Article 9.

It is of course to be understood that the Executive Committee was charged with the duty to arrange the preliminaries of the Congress, and that when the Congress met and elected its officers this committee as such ceased to act unless requested to do so by the Congress. That is to say, the Executive, hereafter called the Preparatory Committee, prepared the Congress and turned it over to its officers.

But the function of the Preparatory Committee was twofold, namely, to arrange for the Congress and, after its adjournment, to take such final measures as were necessary to publish the proceedings and otherwise to complete its labors. This was in accordance with precedent and was thus stated in Article 6 of the Regulations:

> After the election of the officers of the Congress, the Executive Committee shall act under their direction, but shall assume its original functions after the adjournment of the Congress. It shall then have charge of the publication of the proceedings of the Congress.

Upon the completion of the organization of the Congress, His Excellency, Sr. EDUARDO SUÁREZ MUJICA, Chilean Ambassador, was chosen President of the Congress, as the ambassador or minister of the country in which the preceding Congress was held, accredited to the country in which the new Congress is to meet, becomes the President of the Congress. JOHN BARRETT, Director General of the Pan American Union, was chosen Secretary General; JAMES BROWN SCOTT, Reporter General; and GLEN LEVIN SWIGGETT, Professor, University of Tennessee, Assistant Secretary General.

It was deemed advisable to appoint an Executive Committee of the Congress consisting of the chairmen of the official delegations of the twenty-one American Republics, and in order that the new Executive Committee thus composed should be kept in touch with the Preparatory Committee it was decided that one of its members should be elected to the Executive Committee, with the understanding, however, that the United States should have but one vote therein. Mr. James Brown Scott was accordingly selected as the representative of the Preparatory Committee by the Executive Committee of the Congress. The program

[1] See Appendix VI, pp. 309, 323.

[2] See Appendix II, p. 159.

of the Congress was drafted by the Preparatory Committee and divided into sections in accordance with Article 7 of the Regulations.

It was foreseen that the sections would need to be divided into subsections, and as a matter of fact they were so divided in order that related subjects forming groups should be treated together before the recommendations of any subsections were presented to the section, which either approved them, in which case it transmitted them to the Executive Committee of the Congress for such action as this committee might take, or disapproved them, in which case they were not so transmitted.

The Preparatory Committee had to determine the question of membership in the Congress and in this regard the procedure of the First Congress was likewise followed. Article 9 of the rules divided the delegates into five classes, the first of which consisted of the official delegates of the countries represented, the second of the representatives of leading universities, institutions, associations, societies, and scientific bodies of the different countries, and the third of such persons who fell within neither of the above classes, but who by reason of their prominence in the field of science were invited by the Executive Committee to participate in the proceedings of the Congress with the approval of the countries represented. In addition there were two other classes made up respectively of the members of committees officially appointed and of the writers of papers.

It has been stated that the Executive Committee of the Congress, as distinct from the Preparatory Committee, was appointed, consisting of the chairman of each official delegation or other member recommended by the chairman, to which body the proposed resolutions and recommendations of the different sections were to be referred for approval, modification, or disapproval. The Congress felt the necessity of having the various resolutions and recommendations passed upon by a body possessing its confidence, which the chairmen of the different delegations possessed in the highest degree. The members of the Executive Committee, with the addition of His Excellency Sr. EDUARDO SUÁREZ MUJICA, President of the Congress, JOHN BARRETT, Secretary General, JAMES BROWN SCOTT, Reporter General, GLEN LEVIN SWIGGETT, Assistant Secretary General, and HENRY RALPH RINGE, Recording Secretary, accordingly were:

Argentina, ERNESTO QUESADA.
Bolivia, ALBERTO GUTIÉRREZ.
Brazil, DOMICIO DA GAMA.
Chile, JULIO PHILIPPI.
Colombia, CARLOS CUERVO MÁRQUEZ.

Costa Rica, EDUARDO J. PINTO.
Cuba, CARLOS MANUEL DE CÉSPEDES.
Dominican Republic, CARLOS ARMANDO PERDOMO.
Ecuador, VÍCTOR MANUEL PEÑAHERRERA.
Guatemala, JOAQUÍN MÉNDEZ.
Haiti, CHARLES MATHON.
Honduras, CARLOS ALBERTO UCLÉS.
Mexico, MANUEL GAMIO.
Nicaragua, DÁMASO RIVAS.
Panama, EUSEBIO MORALES.
Paraguay, EUSEBIO AYALA.
Peru, ALEJANDRO DEUSTUA.
El Salvador, RAFAEL ZALDÍVAR.
United States of America, GEORGE GRAY.
Uruguay, CARLOS MARÍA DE PENA.
Venezuela, JOSÉ L. ANDARA.

It was foreseen, however, that the labors of the Congress in this and other ways would be facilitated if subcommittees were appointed from among the members of the Executive Committee, to consider certain phases of the work and to report to the full committee for such action as its members might care to take. A distinction was made between a resolution and a recommendation, a distinction of origin but not in the nature of a discrimination. A resolution, as defined by the Executive Committee, was a proposal originating in a section and, after favorable action, transmitted to the Executive Committee; whereas a recommendation was a proposal referred directly to the Executive Committee, without passing through a section. However, it was the Congress which stamped the resolution or recommendation with its approval and the difference of origin of the resolution or of the recommendation thus became immaterial. A subcommittee of five members was, however, appointed to consider the resolutions:

ERNESTO QUESADA, Argentina, *Chairman.*
MANUEL GAMIO, Mexico.
SANTOS A. DOMINICI, Venezuela.
ALEJANDRO O. DEUSTUA, Peru.
GEORGE GRAY, United States of America.

A committee, likewise composed of five members, was appointed to consider the recommendations:

JULIO PHILIPPI, Chile, *Chairman.*
CARLOS M. DE PENA, Uruguay.
ROBERTO ANCÍZAR, Colombia.
CHARLES MATHON, Haiti.
CARLOS MANUEL DE CÉSPEDES, Cuba.

These committees reported their conclusions to the Executive Committee. A third subcommittee, likewise of five members, and in which the chairmen of the other two committees were ex officio members, was appointed on the Final Act; that is to say, to give the resolutions or recommendations, for they were one and the same in effect, after their approval by the Executive Committee, their final form and to determine their appropriate and logical place in the Act to be drawn up, and to be known as the Final Act of the Congress. This committee consisted of—

JAMES BROWN SCOTT, United States of America, *Chairman*;
ERNESTO QUESADA, ex officio, Chairman, Committee on Resolutions;
JULIO PHILIPPI, ex officio, Chairman, Committee on Recommendations;
ALBERTO GUTIÉRREZ, Bolivia;
EUSEBIO AYALA, Paraguay.

This committee drafted the Final Act, which included the resolutions and recommendations which the Congress felt should properly be accepted and laid before the Governments of the American Republics, in order that they might, as far as possible, be carried into effect. The Preparatory Committee had decided that a general report should be prepared, to accompany the Final Act, explaining, commenting, and interpreting its provisions, and appointed Mr. JAMES BROWN SCOTT as Reporter General of the Congress, to draft the report to accompany the Final Act. The action of the Preparatory Committee was confirmed by the Executive Committee of the Congress.

Before passing to a consideration of each article of the Final Act, it should be stated in this, although it will be pointed out in a later, connection, that the duty was imposed upon the Government of the United States, as the country in which the Congress was held, to transmit the resolutions and recommendations contained in the Final Act to the Governments of the American Republics participating in the Congress, and the Congress suggested in addition that a Government specially interested in any one of the resolutions or recommendations should take the initiative and the steps necessary to carry the same into effect. These provisions were introduced in order that it might be the duty of the Government of the United States, which had called the Congress, to transmit its proceedings to each of the participating Governments and to secure, in so far as any action of the Congress could effect it, the realization of the projects by specifically investing a participating Government interested in a resolution with the power to take the initiative. This was

done in the hope and in the belief that, if a participating Government were invested with this power, the power would be exercised, so that the proceedings of the Congress would be transmitted to the different countries and its labors bring forth their fruit in due season, to the benefit of the American countries whereof the delegates, official and unofficial, are both proud and happy to be citizens.

ARTICLE 1. The Second Pan American Scientific Congress considers that—

It is highly desirable that the American Republics arrange for the appointment of delegates for joint action in the matter of archæological exploration, in order to formulate and to propose generally acceptable and substantially uniform laws relating to the survey, exploration, and study of archæological remains to be found in the Republics, and to secure the enactment of laws which will effectively safeguard these remains from wanton destruction or exploitation and which will serve to aid and to stimulate properly organized and accredited research in archæology.

The provisions of this article, proposed by the First Section of the Congress devoted to Anthropology, Ethnology, and Archæology, carry conviction, require little comment or elucidation, and nothing by way of justification. Many parts of the American Continent are rich in archæological remains, such as ruins, monuments, and burial sites, containing many examples of the industry and art of the aborigines. Scientific exploration of these remains, with the study of resulting discoveries, are objects of utmost importance, for on their basis only is it possible to reconstruct the lost history of the American race. But in order that such remains may be saved to science and not be wantonly exploited or destroyed before they can be studied, it is essential that proper laws and regulations be adopted by the various countries in which such remains exist, the object of such laws and regulations being to prohibit as far as possible their exploration or destruction by unqualified persons, to prevent trade in articles recovered from the ruins and graves, and at the same time to enable properly qualified scientists both native and of other countries to undertake and to carry on scientific exploration and collection. It is a gratifying fact that the majority of the American Republics have already certain laws relating to antiquities, although these laws are unlike in the different countries and in some instances are such

that they have resulted rather in restraining than in advancing properly qualified research.

ARTICLE 2. The Second Pan American Scientific Congress requests the Government of the United States to bring to the attention of the Governments of the American Republics participating in the Congress and, through their respective Governments, to the institutions and the public thereof, the importance of promoting research in the field of archæology, organized surveys for the study of primitive tribes, and the building of national educational museums for the preservation of the data and materials collected.

In various parts of the American Continent there are remnants of the aboriginal population, a study of which would be of great importance to science. As is to be expected, many of these remnants are very imperfectly known and are rapidly disappearing because of a lack of interest and of proper supervision, and yet properly made and preserved collections, ethnological and physical, are admittedly among the most precious scientific and educational assets of a nation.

These observations, of a very general kind, will find ready acceptance, but unless it be made the duty of some Government to take the initiative, it is to be feared that the present unsatisfactory condition of affairs will continue to exist. Therefore the Congress decided to invest the Government of the country in which the Congress met, in this instance the United States, with the duty of calling these very important matters to the attention of the other Governments participating in the Congress, to the end that steps be taken while there is still time to regulate archæological exploration by just laws and to preserve the records of times past and of primitive races to future generations.

It often happens that the resolutions of a Congress or of a section thereof give but a very imperfect and inadequate idea of the value of the proceedings. This is peculiarly the case of the section devoted to archæology, which restricted itself to the minimum of action on the part of the Governments and refrained from proposing resolutions and recommendations on matters of general interest even although they would tend to show the nature and scope of the proceedings. For this reason it seems desirable that a few paragraphs be devoted to a more general consideration of the subject and of the discussions which actually took place in the section.

Anthropology is properly defined as the Science of Man. It seeks to find out and to place upon record all that can be known of the history

and characteristics of the human race. Beginning with the present period, researches in anthropology extend backward in an almost endless perspective to the birth of the race. Slowly but surely they are penetrating the shadows of the past, and in good time the veil which has obscured the story of man's origin and becoming will be lifted, and those who will may know the truth. Science does not stop, however, with the work of unveiling the past. It seeks to know and to understand the present man and to apply that knowledge to his betterment. Its activities extend thus to a consideration of the problems of education and to a determination of the most effectual means of applying the principles of eugenics to the further evolution of the race.

It was with the view of bringing together the many devotees of this great branch of research that the Section of Anthropology was organized and the program formulated, and the results have justified the most sanguine expectations. Joint sessions were arranged with five kindred organizations whose activities come within the field of anthropology, and the papers and discussions had a wide range. The body of students of the science thus brought together is believed to have exceeded in number and importance any previous assemblage of its kind, at least on this side of the Atlantic.

Necessarily the papers presented and discussed—162 in number—touch upon but a limited number of the salient features of the extensive and much diversified subject-matter. Chief attention was given to the results of recent researches in the Pan American Republics, studies relating to man himself as the most important biologic unit, to living stocks and tribes and their extremely varied cultures, and to the vast body of material traces of the prehistoric occupancy of the continent.

The physical man, and more especially the aboriginal American man, received the attention which his position as the original proprietor of the continent and as one of the principal races of men would suggest and render appropriate. The problems of the origin of the American race have occupied many minds since the discovery of the continent, but it is only within recent years that anything like real scientific deductions have become possible. It was made apparent that there is but one American race, and that no trace has ever been found of any other than the Indian race on the continent. It was shown that this people represents physically an advanced and hence a relatively late form of humanity; that it connects in its physical and physiological characteristics with the yellow-born people of eastern Asia, and more remotely, in all probability, with the latest paleolithic or early neolithic peoples of the Old World.

It was also shown that the original inhabitants of America must have come to this continent by the several northwestern routes; that this advent could not have occurred before Asia itself was well peopled; and that immigrants could not have arrived on this continent in any considerable numbers at one time, but rather that arrivals were in relatively small parties and extended over long periods of time. Among the important subjects discussed were those of the racial elements entering into the modern population of America, and the ethnic problems of immigration. These diversified racial elements have united in varying degrees with the native American population and are slowly developing new ethnic variants, the study of which is of great interest and importance.

The branch of anthropologic science known as ethnology deals mainly with the problems of the present and historic populations, with their physical and mental characteristics, and with every department of their culture language, social institutions, religion, technology, esthetics, traditions, and lore. There are upward of a thousand tribes, and each presents an ethnic complex so intricate and so obscure that no single one has as yet been exhaustively studied and placed upon record.

In the conferences of the Section attention was given in certain measure (1) to the origin, development, characteristics, and relationships of the 500 or more languages distributed over the continent from Alaska to Patagonia; (2) to the problems of the social institutions which, when mastered, will become available to the historian of the race in his efforts to determine the processes and laws of the evolution of civilized institutions; (3) to the problems of the diversified systems of belief which men have devised to explain the mysteries of the cosmos and of their environment and their relations thereto, and to the endless array of devices—the rites and ceremonies—by means of which primitive man has sought and still seeks to influence the deities which he has created; (4) to the problems of technology, which involve the consideration of each and every art and industry known to man, and the activities by means of which he has advanced through a long series of experiments, inventions, and adaptations to his present state; (5) to the problems of the esthetic arts—the embellishing and fine arts—which take so prominent a place in the history of civilization, for nowhere are these more readily and effectively studied than in the primitive American field; (6) to the problems of geography which relate to the original habitat and migrations and the complicated course of distribution which has resulted in the present geographical position of the tribes and nations.

Archaeological research, which had an important place in the deliberations of the Section, serves to carry backward into the past the story of the known peoples and to supplement this by the almost endless perspective of prehistory. These researches make clear the course of human progress from the first weak and halting step in the manual arts to the building of temples, the invention of the calendar, and the inception of phonetic writing—the latter the stepping stone to the state known as civilization. Archaeology has to solve also the problems of chronology, to determine the place of the race in the geological scale, and in the ordinary scale of time. The solutions await, however, prolonged and profound studies which involve also the sciences of geology, biology, climatology, geography, and even astronomy, for man's career in the world has intimate relations with all of these.

It is believed that the time has now arrived when the many misconceptions regarding the scope and significance of anthropological science—the science of human history—must disappear and the importance of its position in the hierarchy of sciences will be fully recognized. The Second Pan American Scientific Congress has had a goodly share in the promotion of this great end.

ARTICLE 3. The Second Pan American Scientific Congress recommends that the American Republics undertake as soon as practicable—

(*a*) Accurate, geodetic measurements which may serve to determine limits, national and international, and to contribute to the discovery of the true shape of our planet;

(*b*) Magnetic measurements of their respective areas, and the establishment of several permanent magnetic observatories in which it may be possible to carry on during long periods of time observations concerning the secular variation of the magnetic elements of the earth;

(*c*) To extend their gravimetric measures, obtained by means of the pendulum, to those regions where such measurements have not been undertaken, in order to obtain more information to determine the true shape of the surface and the distribution of the terrestrial mass.

The program of Section II, devoted to problems of astronomy, geodesy, meteorology, and seismology, was planned to include topics of general international interest and importance, and in particular topics of Pan American interest. Among these attention and discussion were concentrated upon the subject matter of the recommendations of the Congress

contained in Article 3, which are everywhere recognized as of international importance.

First, as to paragraph (*a*), which recommends a new determination of the lunar parallax and of the flattening of the earth from closely simultaneous observations of the moon when on or near the same meridian. It is known that the seventieth meridian of longitude west of Greenwich passes through New England and through western Patagonia and affords especially favorable conditions for nearly simultaneous meridian observations in these widely separated localities. The Observatory of Harvard University and the observatories of Argentina are not far from this meridian, and hence could be immediately utilized in securing data for additions to our knowledge of the mean distance of the moon and of the surface shape of the earth. The resources of modern astronomy render it quite practicable also to establish effective temporary observatories without great expense on a given meridian and to secure thus strictly simultaneous measures.

Second, as to paragraph (*b*) of the recommendation. Of equally wide scientific interest and of much greater utilitarian importance is a project considered at length by the Section of connecting and covering the states of the North and South American continent by a continuous and uniform network of geodetic triangulation. When such a network is completed its projection on a meridian will give an arc of about 126° in latitude, while its projection on the equator will give an arc of about 153°. Such arcs will afford a contribution of the highest value in increasing the precision of our knowledge of the dimensions of the earth. But the greatest value of such a network of triangulation will consist in its availability as a basis for cadastral surveys and for the delimitation of state divisional and interstate boundaries.

Considerable progress has already been made toward the consummation of this project. The area of the United States is now well covered by primary triangulation. Mexico has made much progress in covering its area with a geodetic network. The famous Peruvian arc of meridian measured by Bouguer and Condamine in the first half of the eighteenth century has been recently remeasured and extended, while similar work is projected in various Latin American countries and in Canada.

Third, as regards paragraph (*c*) of the recommendation. Intimately related to the two preceding topics is that of the desirability of extending a gravimetric or pendulum survey over the areas not hitherto covered by such work. It is known from theoretical considerations that the time of vibration of a pendulum of given length or the length of a second's pendulum at any place depends upon the mass distribution of the earth,

and hence upon the latitude and longitude of the place of observation. The development of our knowledge of the shape of the earth has passed the first and second stages of approximation, the first approximation being a spherical surface and the second being a spheroidal surface of revolution. The third approximation, known as the geoid, requires for its determination an extended gravimetric survey in combination with the geodetic measurements already referred to.

A prime requisite in connection with the practicability of these projects is a knowledge of the costs involved. The work contemplated will require several decades, aggregating perhaps a half century, for its accomplishment. Hence it was desirable in the discussions to have presented data derived from recent experience on the costs of the principal items essential in such work. Accordingly, a member of the Section furnished elaborate statistics for each of these items, along with indications of ways and means which should be pursued in order to secure the requisite efficiencies at minimum costs.

ARTICLE 4. The Second Pan American Scientific Congress recommends that—

The Nations of the American Continent establish, by means of their offices of geodesy or by committees appointed for that purpose, an international triangulation;

The Governments of the American Nations reach an agreement for the purpose of creating an office or congress of cartography and geography.

In framing the program for the Engineering Section of the Congress, which proposed this undertaking, it was deemed best to limit topics for discussion to those which seemed to be of the greatest immediate mutual interest to Pan America, to give special prominence to the matters which had been considered at previous Congresses, and especially to those referred by the First to the Second Pan American Scientific Congress. Under such circumstances particular attention was given to matters pertaining to transportation, to electrical engineering, to reclamation, irrigation and drainage, to sanitary and municipal engineering, and to a few topics of mechanical engineering, omitting as of lesser importance all subjects which might be considered theoretical rather than practical. The topics above mentioned were later enlarged by the addition of others of a miscellaneous nature, such as standards, surveys, public parks, public buildings, and special engineering work of governmental departments or bureaus.

The topics of an engineering nature especially referred to the Second by the preceding Congress were those of the type of construction best adapted for piers and quays in locations where the water front possessed great depths and swift currents; the laws and regulations regarding the use of water for combined purposes of navigation, irrigation, municipal water supply, and water-power development; methods of irrigation; and the compilation of engineering terms and idioms peculiar to each Pan American country, with their Spanish, Portuguese, French, and English equivalents. As regards the latter topic it was not expected that the work of the Second Congress would be in any way final but that it would be rather of the nature of a report of progress, looking forward to completion at future Congresses.

The various subjects enumerated in the program were carefully discussed by persons specially qualified by their training so to do, and it is a gratifying fact that fully one-third of all the papers, which are of great value, as will be seen from the proceedings, were contributed by representative Latin American scientists.

As an indication of the desire of the engineers of North America to be helpful to the members of their profession in the Americas, it may be stated that, at the first general session of the Engineering Section, the attention of the Latin American members was especially invited to the desire of the officers and committee of this Section freely to aid all Latin American delegates in meeting such engineers and in visiting such engineering works and manufacturing plants in the United States of America as the Latin American delegates might wish to meet and to visit. The attention of the visiting delegates was especially called to the existence in New York City of the American Society of Civil Engineers, the American Society of Mechanical Engineers, the American Institute of Electrical Engineers, the Society of Naval Architects and Marine Engineers, and to the fact that each of these Societies would be glad to extend to all Latin American delegates, after the conclusion of the sessions of the Congress, the uses, facilities, and courtesies of the societies, libraries, and rooms in New York City; that their officers would be happy to assist all Latin American delegates in making any necessary arrangements for desired visits to the various engineering societies and factories above referred to, and for correspondence with North American engineers and manufacturers at any future date and on any topic of mutual interest to Pan American engineers.

The Engineering Section hoped that the participation of the visiting delegates in the proceedings of the Congress would be but the beginning of friendly and harmonious cooperation, and the members of the Sec-

tion were very anxious that the intercourse, begun under such happy auspices, should not be terminated with the close of the Congress, but that it might be continued through the years to come.

Turning now to the specific recommendation of the Congress, which has already been set forth, the Congress felt that fixing and defining frontier lines would not only be a useful and a necessary undertaking, but that, in addition, it would contribute to the friendly relations between American countries, because, by the determination of frontier lines, one of the causes of friction and misunderstanding between the republics, which should be to each other as neighbors, would disappear, and science would thus become a factor in American fraternity. Scientifically it would solve in part the problem of uniting the international nets, without the inconvenience now encountered after the triangular system of each country has been completed, and, in addition to this very great service, the completion of the labor recommended by this article would offer valuable elements for the study of great meridian arcs and parallels.

In like manner, the second paragraph of the recommendation has a value transcending its scientific importance, for the diffusion of knowledge contributes to the friendship of Nations, and the study of geography in all its branches and the unity of cartographic systems favor commercial and industrial exchange.

ARTICLE 5. The Second Pan American Scientific Congress recommends that—

> Proper steps and measures be taken to bring about in the American Republics a general use of the metric system of weights and measures, in the press, magazines, newspapers, and periodicals, in educational and scientific work, in the industries, in commerce, in transportation, and in all the activities of the different Governments.

To the citizens of the Latin American Republics this article will seem well-nigh meaningless, for in the Western Hemisphere the English system of weights and measures obtains only in the United States and the English-speaking colonies, whereas the remaining American Republics and the greater part of the Eastern Hemisphere use the metric system. Measures and weights are, however, an important part of the vocabulary in international relations. The English is not nearly so convenient and simple as the metric system, either in commercial or scientific work. The use of the English system in the United States is one of the important obstacles, in the opinion of the American delegates, to a closer

commercial and scientific intercourse and cooperation between the United States and the other American Republics. Therefore the adoption of the metric system by the United States would be a great benefit economically to the general public, and it is believed that it would not be without importance in promoting good will and mutual understanding.

ARTICLE 6. The Second Pan American Scientific Congress—

Confirms the resolution recommended to the American Republics by the First Pan American Scientific Congress regarding the installation of meteorological organizations to serve as a basis for the establishment of a Pan American meteorological service, and expresses the desire that the Republics not yet possessing organized meteorological services establish such as soon as may be practicable.

As questions of international importance, the various topics under meteorology and seismology were considered in the Second Section of the Congress. The needs especially of the organization of governmental services for continuous observation of atmospheric and terrestrial phenomena by means of common methods, intercomparable apparatus, and common units were dwelt upon. Much attention was given to the modes of organization and conduct of existing weather bureaus, to methods of forecasting weather, and to the increasing importance of the application of these as an aid to agriculture, navigation, and land transportation of perishable products. Much attention was given also to consideration of secular phenomena in meteorology and to their effects in the habitable as well as in the uninhabitable parts of the globe.

One of the most interesting topics considered as a by-product of the work of the Second Section was that of the desirability of forming an unofficial international association of meteorologists and seismologists for the mutual exchange of ideas and experience arising from these sciences. It was thought that such an organization might accomplish for meteorology and seismology results similar to those which have proved highly beneficial during the past two centuries in the older physical sciences.

It will be observed by persons familiar with the Pan American Scientific Congresses, and indeed it is expressly stated in the recommendation itself, that the importance of the present recommendation has been hitherto recognized and called to the attention of the American countries by the First Pan American Congress; so that the recommendation in question is in reality a reaffirmation of the resolution of the First

Pan American Scientific Congress, recommending as most desirable the establishment of official meteorological and seismological services in countries which have not yet established such agencies for the advancement of knowledge of our planet and for direct aid to agriculture, transportation, and sanitation. It is to be hoped that a recommendation urged by two Scientific Congresses of the Americas will be carried into effect, as it would not have been proposed in the first instance, had its advisability not been apparent, and it would not have been reaffirmed by the present Congress unless it were considered, upon reflection, highly desirable. For this reason the Congress, in making the recommendation, expressed the hope that the services would be established where they do not exist as soon as may be practicable.

ARTICLE 7. The Second Pan American Scientific Congress recommends that—

There be appointed an international Pan American committee to study and report upon the question of establishing such a uniform railway gauge as will best serve the countries' interest, their international communication, and the communication between all the countries of America.

The place of communication in the economy of nations is so generally recognized that it only need to be stated in order to be accepted. If the republics of the American Continent are to be brought into close and constant intercourse, with resultant friendship and mutual appreciation, and if the commercial relations of the Americas are to become closer and mutually more advantageous, as is the hope of partisans of Pan Americanism, every recommendation tending to facilitate communications between and among the republics should indeed be welcome.

The present article, which came to the Congress with the approval and at the instance of the Section on Engineering, recognizes the necessity of establishing a uniform railway gauge in order that the railways of all countries might be uniform and therefore be of common use. Recognizing also the difficulties in the way of establishing the uniform gauge, the Engineering Section advocated the appointment of a Pan American Committee, to study and to report upon the question, in the hope, if not the expectation, that the investigation and report of such a committee would tend to remove the obstacles that stand in the way and which have hitherto stood in the way of the uniform railway gauge. The Congress shared the views of the Section as to the importance of uniformity in this method of transportation and recommended the appointment of the

Committee in the hope that steps might be taken, as the result of the Committee's labors, tending to establish the uniform railroad gauge, which was felt to be not merely an economic factor but an element in bringing about and maintaining good understanding and friendly relations among the American republics.

ARTICLE 8. The Second Pan American Scientific Congress recommends—

The appointment of an American committee on radio communication to assist in the development of the science and art of radio communication, to the end that it may serve to convey intelligence over long distances and between ships at sea more quickly and accurately, and to bring into closer contact all of the American Republics.

This recommendation, due to the Engineering Section, states the advisability, indeed the need, and the advantages which might reasonably be expected to accrue from the appointment of a Pan American International Commission on radiotelegraphic communication. These advantages can not be gainsaid, for it surely needs no argument that the rapidity of communication between all countries of the world is of great advantage to their governments and their peoples, and the growing tendency to increase such rapidity suggests the advisability, if not the necessity, of the establishment of uniform laws and methods.

ARTICLE 9. The Second Pan American Scientific Congress recommends that—

A cooperative study of forest conditions and of forest utilization be undertaken by governmental agencies of the American Republics and that the data thereon be published.

Section III of the Second Pan American Scientific Congress was designed to cover the subject of the conservation of natural resources, agriculture, irrigation, and forestry.

It was not indeed by any means the first time that these subjects had been discussed in conference by interested persons in various parts of the Americas, but it was probably the first time that the subject of conservation of resources was broadened to include the thought that sound economic principles of conservation should be applied, not only to our natural resources of mineral, forest, and water-power wealth, but also to the food supply as represented in our animal and plant industries, and to the distribution of agricultural products.

The administration of President ROOSEVELT was peculiarly interested in questions of conservation.

In May, 1908, upon the invitation of President Roosevelt, the Governors of the States and Territories of the United States met in Washington in conference on natural resources. Pursuant to the suggestion of the governors, President Roosevelt created, on June 8, 1908, the National Conservation Commission, and under the direction of this commission the first inventory of the natural resources of the United States was prepared. A joint conservation conference was held in Washington December 8–11, 1908, composed of Governors of States and Territories, conservation commissions, and interested persons, and as an outgrowth of this conference a letter of invitation to Canada and Mexico to join with the United States in a North American conservation conference was, on December 24, 1908, written by President Roosevelt. In view of the importance of the subject, the material portion of President Roosevelt's letter to Earl Grey, then Governor General of Canada, is quoted:

> In May of the present year the Governors of the several States and Territories of this Union met in the White House to confer with the President and with each other concerning the amount and condition of the natural resources of this country, and to consider the most effective means for conserving them. This conference included also the members of the Supreme Court, the Cabinet, and Members of both Houses of Congress, together with representatives of the great associations of citizens concerned with natural resources. The conference was followed by the appointment of conservation commissions on the part of the Nation and of a majority of the States.
>
> A second conference of the national commission with the Governors, the State commissions, and the conservation committees of the great associations has recently been held in this city. It was called to consider an inventory of our natural resources prepared by the National Conservation Commission. Its most important result will doubtless appear in cooperation on the part of the Nation, the States, and the great associations of citizens for action upon this great question, upon which the progress of the people of the United States obviously depends.
>
> It is evident that natural resources are not limited by the boundary lines which separate nations, and that the need for conserving them upon this continent is as wide as the area upon which they exist. In view, therefore, of these considerations, and of the close bonds of friendship and mutual aims which exist between Canada and the United States, I take especial pleasure in inviting you to designate representatives of the Govment of Canada to meet and consult with representatives of the State and other departments of this Government, and the National Conservation Commission, in the city of Washington on February 18, 1909. The purpose of the conference I have the honor to propose is to consider mutual interests involved in the conservation of natural resources, and in this great field deliberate upon the practicability of preparing a general plan adapted to promote the welfare of the Nations concerned.

> I have this day addressed a similar invitation to the Republic of Mexico, expressing my hope that representatives of that Government also will be present and participate in the proposed conference on the conservation of the natural resources of North America.
>
> The conclusions of such a conference, while wholly advisory in character, could hardly fail to yield important beneficial results, both in a better knowledge of the natural resources of each nation on the part of the others and in suggestions for concurrent action for the protection of mutual interests related to conservation.

The invitations to the southern and to the two northern neighbors of the United States were accepted, and the delegates of the different countries—on the part of the United States, Gifford Pinchot, Robert Bacon, James R. Garfield—met at Washington, February 18, 1909, remained in session five days, and drafted an important declaration of principles. For present purposes it is not necessary either to quote or to summarize the declaration of principles, but it is advisable to quote the conclusion thereof, as it related to the call of an international conference and indirectly to the Pan American Conservation Conference of Natural Resources. The passage in question follows:

> The conference of delegates, representatives of the United States, Mexico, Canada, and Newfoundland, having exchanged views and considered the information supplied from the respective countries, is convinced of the importance of the movement for the conservation of natural resources on the continent of North America, and believes that it is of such a nature and of such general importance that it should become world-wide in its scope, and therefore suggests to the President of the United States of America that all Nations should be invited to join together in conference on the subject of world resources and their inventory, conservation, and wise utilization.

Anticipating the recommendation of the conference and appreciating the benefits which would result from an international conference composed of the nations at large, represented by competent and experienced agents of their own choice, an *aide-mémoire*, dated January 6, 1909, was sent to the various Governments, in order to learn whether they would look with favor upon an invitation to send delegates to participate in such a conference.

The replies were so uniformly favorable that President Roosevelt, deeply interested in such matters, lent more than a willing ear to the suggestion, and on February 19, 1909, the Honorable ROBERT BACON, then Secretary of State of the United States, by direction of the President, and with the concurrence of the Netherland Government, sent a

circular instruction to American diplomatic officers abroad to invite the Governments to which they were accredited—

> to send delegates to a conference to be held at The Hague, at such date as may be found convenient, there to meet and consult the like delegates of the other countries, with a view to considering a general plan for an inventory of the natural resources of the world and to devising a uniform scheme for the expression of the results of such inventory to the end that there may be a general understanding and appreciation of the world's supply of the material elements which underlie the development of civilization and the welfare of the peoples of the earth.

The general and specific advantages to accrue from such a Congress to each Nation, and to all, as all are, and must increasingly be, dependent upon the welfare of each, are thus set forth in Secretary BACON'S language:

> It would be appropriate also for the Conference to consider the general phases of the correlated problem of checking and, when possible, repairing the injuries caused by the waste and destruction of natural resources and utilities, and make recommendations in the interest of their conservation, development, and replenishment.
>
> With such a world inventory and such recommendations the various producing countries of the whole world would be in a better position to cooperate, each for its own good and all for the good of all, toward the safeguarding and betterment of their common means of support. As was said in the preliminary Aide-Mémoire of January 6th:
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> "The people of the whole world are interested in the natural resources of the whole world, benefited by their conservation and injured by their destruction. The people of every country are interested in the supply of food and of material for manufacture in every other country, not only because these are interchangeable through processes of trade, but because a knowledge of the total supply is necessary to the intelligent treatment of each nation's share of the supply."
>
> Nor is this all. A knowledge of the continuance and stability of perennial and renewable resources is no less important to the world than a knowledge of the quantity or the term remaining for the enjoyment of those resources which when consumed are irreplaceable. As to all the great natural sources of national welfare, the peoples of to-day hold the earth in trust for the peoples to come after them. Reading the lessons of the past aright, it would be for such a conference to look beyond the present to the future.

In the introductory part of the instruction Secretary BACON stated the special needs of the American Governments and showed at the same time that these needs were common alike to the countries of the older civilization. Thus, he says:

> While recognizing the imperative necessity for the development and use of the great resources upon which the civilization and prosperity of

> Nations must depend, the American Governments realize the vital need of arresting the inroads improvidently or unnecessarily made upon their natural wealth. They comprehend also that, as to many of their national resources, more than a merely conservative treatment is required; that reparatory agencies should be invoked to aid the processes of beneficent nature, and that the means of restoration and increase should be sought whenever practicable. They see that to the task of devising economical expenditure of resources, which, once gone, are lost forever, there should be superposed the duty of restoring and maintaining productiveness wherever impaired or menaced by wastefulness. In the northern part of the American hemisphere destruction and waste bring other evils in their train. The removal of forests, for instance, results in the aridity of vast tracts, torrential rainfalls break down and carry away the unprotected soil, and regions once abundant in vegetable and animal life become barren. This is a lesson almost as old as the human race. The older countries of Europe, Africa, and the Orient teach a lesson in this regard which has been too little heeded.

Unfortunately the international conference which had been proposed by Secretary BACON, pursuant to the direction of President ROOSEVELT, was not held as its august initiators had hoped, but the reasons which prompted it then exist to-day, and indeed make a stronger appeal than its proposers could have anticipated. The United States, therefore, recurred to Secretary BACON'S proposition and decided to enlarge the scope of the Second Pan American Scientific Congress, which was to meet in Washington, in order that it might include in its various sections the subjects which would have been embraced in the program of the original Conservation Conference, and thus to bring them to discussion in the Congress, which would, as far as this topic was concerned, properly be considered as a conference of the American Republics on the Conservation of Natural Resources.

It will therefore be found on reverting to Section III, which naturally covers a very wide range of subjects, that the keynote of conservation runs through the entire program. This is not the reckless conservation which would restrict the use of resources by the present generation regardless of economic laws, but the wise method based upon the recognition of the fact that conservation implies necessarily the means with which to conserve, which may be entirely lacking in a primitive community. Accordingly the Section opened with a discussion of conservation and economic theory. The inevitable law of sacrifice was cited that the conservation of natural resources meets everywhere its sharp limitation in human resources. No doubt industrious farmers could in a short time double or treble the agricultural output of the Americas, but they would have to be assured either of an increase of prices or of a greatly

reduced cost of labor, before they could undertake the additional expense needed to bring about such an increased yield. The problem is therefore to adjust what may be regarded as due to posterity with what is a necessity to the present generation. "Conservation means the greatest good to the greatest number—*and that for the longest time*."

Thirty years ago, when the great farming area of the United States west of the Mississippi River was being developed so rapidly that the world could hardly consume its output, corn (maize) was worth so little to the farmer that he found it cheaper to use it as a source of fuel than to buy coal. At the same time hogs were relatively so numerous that the ravages of hog cholera acted as a check on ruinous price depression. Water power remotely located from the center of industry is only potentially valuable. Low-grade ores and the waste from mines may be of no value until the demands of commerce develop more economic methods of extraction and utilization, or increase the prices quoted so that it becomes profitable to work them. The high consumption of meat per capita in some of the American countries and in Australia is economically impossible in the thickly settled countries of Continental Europe.

The growth of population has warranted the rejuvenation of the Nile Valley, the building of the Assouan Dam, the Roosevelt Dam, and similar projects, the new irrigation projects in the Province of Buenos Aires, and will in time demand the restoration and use of the irrigation canals of the Incas. Plant diseases, such as smuts and rusts of wheat, citrus canker, white pine blister rust, and parasites, such as the San José scale and the gipsy moth, would not concern a territory so sparsely settled as was the United States during the first half of the Nineteenth Century, but their prevalence now demands the most vigorous efforts of private and public agencies for their control. A system of pitiless and wasteful competitive marketing of agricultural products may serve the purposes of a community in which good prices and never-failing crops insure a profit to the producer, but, with the increase in the value of land and the cost of labor, the elimination of marketing wastes is imperative in order that food may be produced at prices which those who eat it can afford to pay.

These statements are self-evident to anyone familiar with the industries in question, but a failure to give proper consideration to the economic laws underlying them is largely responsible for much of the loose thinking which often prevails in discussions on conservation. What may be a proper use of resources in the present generation may be reckless waste in the next. The problem of each generation is therefore to determine how far to meet its demands for the necessities of life, and

at the same time to "conserve" its obligations to the generations which are to come. It follows, therefore, that each right-thinking man and woman who has a decent regard for the rights of his neighbor and of posterity is a true conservationist. They agree on fundamental principles and differ only in the details of their application.

It has become a habit in the United States to rush to the Government for the solution of any and all of these problems. Unquestionably there are many phases of them which are properly within governmental jurisdiction. How far we should look to the direction of Government in these matters, and to what extent the Government should leave them to private agencies, were questions which directly and indirectly claimed a large share of attention in the meetings of this Section, and it is proper to say that the Section reached more satisfactory results than had been thought likely. These results are, of course, to be found in their most concrete form in the resolutions which the Section adopted.

It will be observed that the resolutions of this Section, which were approved by the Executive Committee and incorporated by the Congress in the Final Act require governmental action. It is evident, however, that the recommendation of governmental action involves acceptance of the principles upon which Governments are asked to act in the subject matter to which they refer, and it therefore becomes of importance to consider and to state these principles.

The general principles to which reference is made are to be found in a series of resolutions, five in number, which were adopted by the Section.

The First Sectional Resolution is as follows:

> That each of the American Nations should take steps to conserve its mineral resources for the purpose of yielding to its citizens the greatest possible returns, as well as serving as sources of supply for less favored countries. This result may be accomplished:
>
> I. By using the most approved scientific methods in making preliminary examinations, thus avoiding the expense of attempting to develop nonproductive areas;
>
> II. By improvements in mining, quarrying, and drilling, so as to prevent or reduce loss, either by individual effort or by governmental regulation;
>
> III. By better treatment and preparation of the products of the mines, the quarries, and the wells; and
>
> IV. By more efficient methods of utilizing the finished materials when they are ready for the market.

The above resolution contains no recommendation for joint action by the several American Republics because it was thought that the time had not yet arrived for attempting such joint action on the conservation of mineral resources; but, desiring that some action be taken approving

the general principles of conservation, the resolution was presented to and passed by the Section.

The Second Sectional Resolution deals with public ownership of forest lands and is as follows:

> The experience of nearly all countries has shown that the private ownership of mountainous forests, on lands unsuited to agriculture, endangers the public welfare. The burdens of private ownership during the long periods necessary to grow forest crops often lead to wasteful and uneconomical utilization of the forests and failure to conserve and renew them. Aside from loss of present and future timber resources, the destruction or depletion of mountain forests vitally affects the flow of streams and other physical conditions bearing directly upon the general economic welfare. Therefore, as the investigation of forest conditions progresses, it is important for the American countries to consider to what extent public ownership of their forest resources may be necessary to utilize and conserve them effectively.

The movement for the conservation of forests in the United States is practically based upon the recognition of the need of governmental ownership and control of natural resources. This is now the established policy of the United States and of nearly all European countries, particularly in the matter of forest resources. The South American countries are now going through the same process of disposing of their vast public domains as the United States went through in the sixties and seventies. The irreparable mistake of such indiscriminate disposition by the United States of its public domain is evident and admitted, and the newer countries of America have now the opportunity to avoid this mistake by retaining their public domain in public hands. The Section felt that it would not have fulfilled its object if it had failed to point out this cardinal principle of the movement for the conservation of natural resources.

The Third Sectional Resolution, with reference to forest education, is thus worded:

> The vast extent and enormous value of the tropical forests in the countries of the Western Hemisphere make it imperative that a school of tropical forestry for instruction in the scientific treatment and exploitation of such timber lands be established, preferably in a Central or South American country.

There are large tropical forests in nearly all of the American Republics, yet there is not at present a single school which devotes any attention to tropical forestry. Neither the reconnoissance of the tropical forests nor the establishment of efficient methods of wood utilization can be accomplished without a corps of foresters, trained in dealing with

the problems of the tropical forest. There is urgent need therefore for a school of such a character.

The Fourth Sectional Resolution, concerning trade specifications, follows:

> To bring about better utilization of the forests of the American countries and to establish and extend their trade in products of the forest, it is recommended that uniform grades and specifications for such products, based upon the commercial qualities and uses of the various woods concerned, be mutually adopted.

There are considerable demands in the United States for cabinet woods, dye woods, and other rare woods of Latin America. On the other hand, Latin America imports large quantities of pine, fir, and spruce from the United States. There would be a great deal of saving in the products exported, and trade would be simplified and facilitated if uniform grades and specifications were established of the products imported and exported. At present boards are being imported into South America of such sizes that they must often be resawed or cut over again in order to be utilized in accordance with the customs of trade or building requirements. The same is true of some of the forest products imported into the United States. If specifications and grades were made on the basis of the actual uses to which the woods are to be put in the country of importation, much saving of material and better understanding among traders would be accomplished and commerce in these articles increased.

The Fifth Sectional Resolution stated:

> I. That the development and use of water power is the essence of conservation as applied to known sources of power;
>
> II. That increasing prices for fuels and their ultimate exhaustion render advisable the use of water power wherever practicable in place of power developed from fuel and lend special emphasis to the desirability of making available undeveloped water power;
>
> III. That the development of central electric power systems as opposed to isolated plants and the physical combination of such systems under public control make for reliability of service and for the more complete utilization of sources of power, and that the growth of the hydroelectric industry along those lines is not only commendable but inevitable;
>
> IV. That the increased application of electric energy to everyday use over a rapidly widening area of distribution and the natural monopoly of the electric service inherent in the central electric power system and their physical combination render essential, when the development is made by private capital, a wise degree of public control of such systems in order that the consumer, the operator, and the investor may alike receive fair treatment.

The subcommittee on Conservation of Water for Power, subsection 3 of Section III, in preparing the draft of resolutions which were passed by the subsection and later by the section, and therefore called Sectional, in order to distinguish them from those acted upon by the Executive Committee, included only those principles which have been accepted by all factions interested in the development and utilization of water power and the conservation of natural resources. It is believed that these principles, which are the result of active agitation as to the policies proper to water power and general conservation, and which have been adopted as thoroughly sound rules of action by federal and state governmental agencies in both the United States and Canada, will in time be recognized also in the countries of Central and South America. The resolutions did not, however, contemplate cooperative action by the American countries, and for that reason it was not necessary for the Congress to adopt them in the form of recommendations to the American Republics.

After this formulation of the fundamental principles involved in the conservation of natural resources, and without whose acceptance governmental action would be futile, if not impossible, the various resolutions passed by Section III, presented by it to the Congress and approved by this body and incorporated in the Final Act, will now be taken up. The first of these is the ninth article, which precedes these general observations.

Considerable capital from the United States is now being employed in the development of the natural resources of Latin America, particularly the timber resources. Governmental agencies are constantly receiving requests from prospective investors in Latin America for information as to the extent and character of the resources in timber of that remarkable continent. While all available information has been compiled, it is not adequate to furnish the facts desired. On the other hand, Latin American countries are desirous of attracting foreign capital for the development of their resources, and if they possessed better and more accurate knowledge of these resources, they would, of course, be able to present more definite propositions to the capitalists seeking investments.

Aside from the purely commercial aspect of the situation, an important scientific interest is also attached to the exploration of the forest flora of Latin America. There are probably a number of species of trees which might be found to be economically important to the United States; and a knowledge of the distribution and growth of forests under new climatic conditions would add many new facts to the proper understanding of the laws of forest growth in general.

ARTICLE 10. The Second Pan American Scientific Congress recommends that—

Each of the American Republics appoint a commission to investigate and study in their respective countries the existing laws and regulations affecting—

(*a*) The administrative practice of regulating the use of water;

(*b*) The adjudication of rights pertaining to the use of surface and underground water for irrigation purposes;

(*c*) The distribution, application, and use of water upon arid and irrigable lands;

(*d*) Methods of conservation of surface and underground waters for irrigation or industrial purposes;

And to suggest laws or regulations in the interest of general industry, navigation, and commerce.

Section (*a*), namely, "The administrative practice of regulating the use of water," is a subject of the utmost importance to irrigation wherever practiced. The regulation of the use of water is, of course, essential to the economy of agriculture under irrigation, as well as to navigation, municipal water supply, and power development, and it is important to determine the best methods of such regulation, so that the interests of all may be properly conserved.

Section (*b*), concerning the adjudication of rights pertaining to the use of surface and underground water for irrigation purposes, offers a fruitful field for study and forms a large part of the legislation in states where irrigation is a prominent feature of agriculture. What is in one place surface water may elsewhere because of seepage become underground water of great value and a source of serious litigation if not properly regulated by adequate legislation.

Section (*c*), dealing with the distribution, application, and use of waters upon arid and irrigable lands, opens up a broad field of agriculture under irrigation or what is known in the United States as "dry farming." In view of the fact that water is the life of irrigation agriculture, the importance of this subject is self-evident. In dry farming the conservation of the rainfall is a vital problem in the growing of crops.

Under Section (*d*), namely, methods of conservation of surface and underground waters for irrigation and industrial purposes, fall questions relating to storage, prevention of evaporation, loss by seepage, etc.

The final paragraph of Article 10 is self-explanatory in the sense that it is desirable that laws or regulations in the interest of general industry,

navigation, and commerce be placed upon the statute books of the American Republics.

A very brief and rapid survey of the clauses of Article 10 has been given in order to show the nature and extent of these various recommendations and the importance of careful investigation and study of the existing laws and regulations concerning them. It is not to be supposed that any one committee could adequately deal with these matters, even although it were an international committee in which each Republic was represented. The conditions vary with different localities. The laws and regulations to be framed naturally depend upon conditions obtaining in the different countries. Persons engaged in their study and investigation must be familiar with these local conditions, and, therefore, the Congress determined that, instead of recommending a single commission composed of a representative from each of the American Republics, each Government thereof should be requested to appoint a committee to investigate and study the existing laws and regulations concerning the subject matter of Article 10, and, as a result of their study and investigation, to suggest such laws and regulations relating to the specific clauses and, broadening the scope of their inquiry and usefulness, to suggest laws or regulations in the interest of general industry, navigation, and commerce.

ARTICLE 11. The Second Pan American Scientific Congress suggests that—

> The question of the reclamation of arid lands is one that should receive immediate and careful consideration of the Governments of the American Republics, to the end that there may be increased areas of productive lands to meet the needs of their increasing populations.

The American Governments, particularly those in the Temperate Zone, are to-day face to face with the questions covered by this resolution; it is a subject which is capable of grossly improper treatment, and which has been so treated in some instances. A careful study of the situation is imperative in order that each American country may obtain from the others the benefits to be derived from their experience.

It will be noted that the Congress laid very great stress, and properly, upon the importance of the reclamation of arid lands, and recommended the careful and immediate consideration of this question by the several Governments. In view of its very great importance, and also in view of conditions prevailing in different countries, the Congress hesitated to suggest any particular method of consideration, and contented itself with

calling the attention of the Governments in the most solemn and urgent manner to the necessity of considering, without delay and in all thoroughness, the important matter contained in the article, confident that the Governments would, in their wisdom and as the result of their experience, adopt such measures as to each might seem the most appropriate.

ARTICLE 12. The Second Pan American Scientific Congress recommends that—

(*a*) Each country should maintain a well-organized and competent live-stock sanitary service comprising executive officers, field inspectors, and a laboratory force;

(*b*) Each country should enforce live-stock sanitary laws and regulations with the view of preventing the exportation, importation, and spread within the country of any infectious, contagious, or communicable animal disease by means of animals, animal products, ships, cars, forage, etc.;

(*c*) Each country should maintain a thorough live-stock sanitary survey to determine what communicable diseases of animals are present and the localities where they exist. This information should be furnished regularly to each of the other countries at stated periods as a matter of routine;

(*d*) Each country should refrain from exporting animals, animal products, forage, and similar materials which are capable of conveying infectious, contagious, or communicable animal diseases to the receiving country;

(*e*) Each country should enforce measures to prohibit the importation of animals, animal products, forage, and other materials which may convey diseases from countries where dangerous communicable diseases such as rinderpest, foot-and-mouth disease, and contagious pleuropneumonia exist, and which have no competent live-stock sanitary service. Animals, animal products, forage, and similar materials from countries maintaining a competent live-stock sanitary service may be admitted under proper restrictions, regulations, and inspection, imposed by the importing country;

(*f*) Each country, through its live-stock sanitary service, should endeavor to control and, if possible, eradicate the communicable animal diseases existing therein. There should be an exchange of information as to the methods followed which have proved most successful in combating animal diseases;

(*g*) Members of the live-stock sanitary service of each of the American Republics should meet at regular intervals to consult and inform each other regarding the measures taken for furthering cooperation in protecting the live-stock industry of the American countries.

In adopting this resolution the Congress made official for Pan America the essentials of the recommendations of the convention at Montevideo, held in 1912, on the subject of "Live Stock Sanitary Police." By this action the Governments participating in the Second Pan American Scientific Congress are furnished a basis upon which to develop a competent and effective live-stock sanitary service. A somewhat detailed discussion of the provisions of this resolution seems warranted, in view of the fact that animal industry is probably the leading branch of agriculture in the Western Hemisphere. The importance of the animal industry to the maintenance of the fertility of the soil necessitates its recognition as of fundamental importance in agriculture. The importance of animal products in the food supply of the world necessitates the presence of animal industry for the public welfare. Every effort should, therefore, be put forth to conserve this great industry in every possible way, and to control and, if possible, to eradicate the diseases which threaten it.

In considering the development of a live-stock sanitary service it must be clearly recognized that such a service is for the purpose of protecting, conserving, and advancing the animal industry in every legitimate way. It has not yet appeared possible properly to protect this industry from the spread of devastating diseases except by means of governmental action. The powers of government, however, must be used with careful consideration of the industry itself. It is essential that the laws establishing a live-stock sanitary service and the regulations promulgated under the authority of these laws be framed in such a way that the animal industry of the entire Nation is advanced by their use. It may frequently occur that one section of a country is compelled to subject itself to inconvenience and even loss in order that the industry of the entire country may be protected. No development of this kind should be considered, however, which will enable a favored section or a favored group of individuals to profit by means of laws or regulations which are improperly drawn or unfairly enforced.

Topic (*a*) of the resolution is a skeleton outline for a competent live-stock sanitary service. Executive officers are, of course, necessary in order to administer the work, no matter how small the country may be;

field inspectors are essential to determine the presence of animal diseases and to assist in their control; and a laboratory force is required in order to furnish the administrative and field officers with correct and timely scientific data concerning the character of the diseases with which they have to contend.

Topic (*b*). A live-stock sanitary service without satisfactory laws to support it would be an anomaly, and while in any well-regulated service the powers of the force should never be extended to the utmost, except in cases of great emergency, the authority for the use of such powers should be given, in order that it may be available when needed. This authority should extend, as the item provides, to the control of common carriers of animals and of animal products. A chapter from the experience of the United States in the recent outbreak of the foot-and-mouth disease forcibly illustrates the importance of this provision. The spread of the disease through twenty-two States of the North American Union resulted from receiving infected animals at the Chicago stockyards, and the presence of the contagion there before it was detected. From this point it was spread over a large portion of the country by means of railroad shipments.

Topic (*c*). An intelligent live-stock sanitary service must know what communicable animal diseases are present in the country and where they exist. If the conservation of the animal industry in the Western Hemisphere is to be effectively applied, this information should be made public as soon as it becomes known. This is a feature of the live-stock sanitary service in many of the European countries and the United States, and it is of great value.

Topic (*d*). As a practical application of the "Golden Rule," a country should be fully as solicitous in preventing the exportation of animal diseases as it is in forbidding their importation.

Topic (*e*) is one of the most important provisions of the resolution. Communicable animal diseases are spread by means of infected animals themselves, forage, and similar materials. If there is to be effective control of animal diseases in the American countries, there must be official supervision. The enforcement of this provision will make possible the opening up of trade between countries where now there is none. A country which maintains a competent live-stock sanitary service obviously can not trade with one concerning whose animal diseases nothing is officially known without subjecting its own animal industry to grave danger of infection.

Topic (*f*). The point to which all countries are working through a live-stock sanitary service is the control and, indeed, the eradication of

communicable animal diseases. As an illustration of the control of these diseases may be cited the work of Argentina and of the United States in the control of Texas fever. This disease is now limited to a certain area in both countries and the cattle trade outside of the restricted area can be carried on without hindrance. Cattle from within the quarantined area can be moved safely under proper supervision.

Topic (*g*). This item was included because it is believed essential for officers of the live-stock sanitary service of the different countries to become better acquainted and to work in harmony in developing as far as may be possible the trade in live stock between the American countries.

ARTICLE 13. The Second Pan American Scientific Congress suggests that—

An American Plant Protection Congress be convened as soon as practicable, composed of one or more technical experts from each of the American Republics, in order—

(*a*) To discuss suitable legislation;

(*b*) To provide the means of establishing competent scientific bureaus;

(*c*) To recommend such cooperative research work and control of plant introduction as may be advisable; and

(*d*) To make all reasonable effort to secure appropriate action by the American Republics.

Like Article 12, this recommendation has a precedent in the action of the Montevideo Convention of 1912, in which a number of the South American Republics took part and which suggested methods for the development of plant protection, legislation, and regulation. An early conference for the consideration of this subject by all of the American countries is of the highest importance. Comparatively few plants are indigenous to the countries in which they have reached their greatest economic importance. With the increasing prevalence of plant diseases and parasites, we are witnessing a strong public demand for their control. This public demand will have to be met and the problems underlying it solved in such a way that the interchange of plants and plant products may be continued without injury to agriculture. It is therefore necessary for the persons interested in plant introduction and protection, as well as in the control and eradication of plant diseases and insect pests, to confer at an early date and to work out in a comprehensive and practicable manner the measures to meet the situation.

ARTICLE 14. The Second Pan American Scientific Congress recommends—

The distribution of information regarding the agricultural production of the American Republics and of the publications relating thereto.

It would be difficult to render a greater service to the cause of agriculture in the different American countries than would naturally and inevitably result from the distribution of the publications of an official or semiofficial character issued by governmental, educational, and experimental station authorities. Those of a statistical character are necessary for the proper understanding of the world's trade in agriculture; the practices in trading and transportation should be thoroughly understood, and publications relating thereto made at frequent intervals.

ARTICLE 15. The Second Pan American Scientific Congress believes it to be important that—

The achievements and influence of the founders of the independence of the American Republics be made known to the peoples thereof, and that the important details of the lives of the liberators and statesmen of the continent be included in courses of study in schools of the American Republics.

In order to appreciate the importance of this simple recommendation, it will not be necessary to consider the various methods of writing and of teaching history; for if there be no general concensus of opinion among historians and teachers as to the proper methods of writing and of imparting history, the children and indeed many of their parents have learned and no doubt will continue to learn the salient facts of history through biographies of illustrious statesmen and public benefactors.

It is a truism that what is learned in youth remains throughout life, and the desire of the Congress, as expressed in this important recommendation was and is that the youth of the Americas, while still impressionable and in the formative stage, should learn in their schools the achievements and the influence of the founders of the independence of American States, that they should become familiar with the careers of such men as Washington in North America and with the careers of San Martín and Bolívar in South America. However, the recommendation does not stop there, for the Americas have had an illustrious history since the days of the liberators, and distinguished statesmen in all of the countries have carried on their work, and statesmen of the future in each of the American Republics will continue to carry it on to its full fruition. Therefore, the recommendation not only includes the important details

of the lives of the liberators, but also of the statesmen of the American countries.

But even this is not broad enough to effect the purpose which the Congress had in mind. The history of each country is no doubt taught in the schools thereof and the information recommended by this resolution is no doubt imparted in so far as it concerns the liberators and statesmen of the country in which the school is located. The hope of the partisans of the resolution was that the history of the different American countries be taught in the schools of every American country and that, in connection therewith, the lives and the achievements of the liberators and of the statesmen of the different countries be availed of as far as the circumstances of the case permit, in order that the horizon might be broadened and that there might be no intellectual frontiers in the Western Continent.

ARTICLE 16. The Second Pan American Scientific Congress recommends that—

There be established in the universities of the United States chairs of the history, development, and ideals of the Latin-American peoples, and in the universities of Latin America chairs of the history, development, and ideals of the people of the United States.

This important article may be considered in a general way as the continuation of Article 15, much in the same way as Article 17, concerning the study of the Spanish and English languages, may be considered as the necessary complement to the article under consideration. The intention of the Congress was that the beginning of the knowledge of things American should be made with the child, but that it was necessary to provide greater and larger facilities for the young men and women of the Americas. The details of the lives of liberators and statesmen are attractive and serve to create an interest in foreign countries, but should we stop there the recommendation would fail of its effect. The ideals of the different American countries should become the common property of the American Republics, and to do this the Congress felt that it was highly desirable, indeed necessary, that chairs of the history and of the development and of the ideals of the Latin American peoples should be established in the United States, and that similar chairs should be established in each of the Latin American countries to offer an intelligent and adequate idea of the history, development, and ideals of the people of the United States. It is gratifying to the people of the United States that so much attention to these important subjects is already given in the various American Republics, but it is a source of regret to the advocates

in the United States of an enlightened and intellectual Pan Americanism that greater attention has not heretofore been given in the Republic of the North to the interesting history, the continuous development and the growth and realization of the ideals of the Latin American peoples. It is, however, confidently believed that the meeting of this Congress, in the capital of the United States, composed as the Congress was of the representative scholars, economists, and publicists from each of the twenty-one American Republics, will be both an impetus and an incentive to the acquisition of such knowledge. Chairs of the kind recommended have already been established in a few universities and have exercised a marked influence upon the students attending them. It would be ungracious to single out and to mention any institution or institutions in the different countries, but the Congress hoped by this article, and by the experience already had in the matter, to contribute by its measured recommendation to the establishment of such chairs in every American country; for it is not enough that the outward and material facts be known to the exclusion of an adequate knowledge and appreciation of the inner and spiritual life and growth of the peoples of the American Republics.

ARTICLE 17. The Second Pan American Scientific Congress urgently recommends that—

Spanish be taught more generally in the schools, colleges, and universities of the United States and that English be taught more generally in the educational institutions of the Latin American Republics, and that both languages be taught from the point of view of American life, literature, history, and social institutions.

As a practical example of the benefit arising from a greater familiarity with the lives of the liberators and statesmen of the New World, a passage from the writings of George Washington is quoted as an introduction to the comment upon this article and as a justification of the article itself, if one were needed.

In a letter written in the year 1788 to a comrade in arms, who had returned to his home in a foreign country, although he was a citizen of the United States as well, WASHINGTON, then living in private life but already designated as President of the Republic due to his constancy and devotion, said:

> To know the affinity of tongues seems to be one step toward promoting the affinity of Nations. Would to God the harmony of Nations were an object that lay nearest to the hearts of sovereigns, and that the incentives to peace, of which commerce and facility of understanding each other are not the most inconsiderable, might be daily increased.

The Nations of the world must needs be on speaking terms, and as Spanish and English are at present the most widely spoken of any languages in the Western Continent, the Congress felt justified in singling them out by way of illustration, not with any desire to restrict the advocates of Pan Americanism to those two languages, for Portuguese and French are likewise spoken by American peoples. But a beginning must be made, and the Congress felt justified in recommending Spanish because it is the official language of eighteen of the twenty-one American Republics, and in recommending English, because it is spoken by approximately one hundred million people in the United States, and a knowledge thereof is bound to become more essential the more closely the Americas are drawn together.

But the purpose is not merely that Spanish should be taught in schools, colleges, and universities of the United States and that English be taught in the educational institutions of Latin America. The knowledge of the language is not the sole aim, but of language as the key to unlock the treasures of American life, literature, history, and social institutions. It is to be borne in mind that the word commerce does not figure in this article. The Congress looked beyond material interests to the things of the spirit, well knowing that an understanding based upon an appreciation of and a respect for the intellectual life and the achievements of the Americas would be the great bond of sympathy between the peoples of all the American countries.

ARTICLE 18. The Second Pan American Scientific Congress recommends that—

The study of sociology in American universities where it is not at present taught be inaugurated.

One of the purposes of the Congress is to bring about a correct understanding of the relations of the American Republics and of their peoples one with another through a common interest in science, industry, and art, and, above all, through the development of their bonds of sympathy, difficult to analyze but necessary to any permanent or adequate conception of Pan Americanism.

One of the means to this better understanding is an accurate knowledge of the social environment of the inhabitants of the different American countries, of the elements entering into their social conditions, and the factors of their social development. These are difficult and delicate problems, and conclusions of value can only be reached if the subject be approached in the spirit of the investigator, with the impartiality becoming science and in the spirit of detachment especially difficult in the consideration of social questions.

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Believing that this newcomer in the domain of science is worthy of scientific treatment, and that the results would justify the exertions made, the Congress recommended that chairs of sociology be founded in institutions where they do not exist, in order to give direction and control in the examination and formulation of the fundamental laws of society and of social evolution.

ARTICLE 19. The Second Pan American Scientific Congress petitions—

The Governments of the American Republics to further the interchange of educators of all grades and of students of university, normal, and technical training, and to encourage both to make visits of instruction to other American countries.

It has long been a favorite proposition of the friends of the Americas to secure an interchange of their thought and of their methods, and more particularly to secure the interchange of educators of all grades, of university students, and of students of normal and of technical schools, to visit other American countries, particularly those which offer exceptional opportunities for study and investigation of the subjects in which the educators and students may be especially interested.

It would be gratifying to our *amour propre* to claim the exchange professor as an innovation of our day and generation, but, like so many things which strike us at first sight to be new and are found to be old upon further thought and reflection, the exchange professor comes to us from the ancient world, a fact pointed out by FRANCIS LIEBER, the distinguished international lawyer and political philosopher of the Northern Republic, in the following passage, and to whom we must in justice attribute the proposal to rehabilitate the traveling professor as a factor in our modern life and intellectual development:

> In 1846, in one of my writings, I recalled the fact that under Adrian professors were appointed to lecture in different places, and Polemon of Laodicea instructed in oratory at Rome, Laodicea, Smyrna, and Alexandria. The traveling professor had a free passage on the emperor's ships or on vessels laden with grain. In our days of steamboats and railroads the traveling professor should be reinstated. Why should not the same person teach in New York and in Strasburg?

To which we might add, why not in New York, Buenos Aires, and indeed in the capital of every American Republic?

The aim of the recommendation of Article 19 is not merely to maintain the friendly relations subsisting between Latin America and the United States but to increase and to strengthen them by mobilizing, as it were,

the intelligence and intellectual resources of the various countries of the Western Hemisphere.

No nation, more than any man, can live by itself alone, and the cooperation of nations is as essential to the progress of the world as is the cooperation of individuals for the advancement of society within national boundaries. Commerce and industry are bringing nations closer together and causing them to rely on each other more than in any previous period of history. Means of communication are not only facilitating commerce and industry but actually bringing, by travel and commerce, the various nationalities together; and travel, personal intercourse, and a knowledge of different countries and their institutions tend to remove causes of suspicion which unfortunately exist among nations, as well as among people, who are not brought into close personal contact. The exchange professor is not intended as a substitute for the diplomatic agent; it is obvious, however, that the system of exchange professorships in our various universities would familiarize our professors, as well as theirs, with the problems of scholarship, the aims and purposes of our respective institutions, the means by which they have been created, maintained, and their influence extended, and would carry to all countries participating in the exchange a message of sympathy and of encouragement in the efforts which all are making toward a common goal.

Professors are, to cite only familiar examples, already exchanged between two American universities, Harvard and Columbia, and two European universities, Berlin and Paris; and the results are such as to justify a very great extension of the system. Dr. NICHOLAS MURRAY BUTLER, the eminent and many-sided President of Columbia University, thus briefly summarizes the results as well as the reasons:

> Public interest in this undertaking has been very great, and properly so, for what is being created is a new force to guide and instruct public opinion in international affairs. The nations of the world are clearly coming into closer sympathy and relationship. The establishment of a permanent international court of arbitration at The Hague, to which differences between nations are to be submitted for judicial determination, marks a long step forward in the history of civilization. The universities, always alert where great public interest and great tendencies are concerned, may lend their powerful aid to the promotion of peace and good will between nations by seeing to it that the youth of each is given opportunity to know and to understand the point of view of the people of the others. It is not only as a mere academic interchange that this undertaking is important. It has far-reaching national and international significance.

It is therefore clear that the organization of the system on an international basis by extending it to all the countries of the American conti-

nent would greatly benefit Pan America; for the presence of Latin American professors at the universities of the United States would enable the people of the North to understand as never before, not merely the difficulties of Latin America, but the progress made in spite of all those difficulties; for the visiting professors, coming alike from Latin America and the United States, would inform themselves as to the methods of instruction, political aims, purposes, and ideals of the countries in which they temporarily reside, and on returning to their homes would form a center of international good understanding. Without underestimating the value of formal agreement reached through diplomatic channels, experience shows us that informal cooperation with Nations is a great factor in the progress toward international unity, and the better understanding produced by the presence of exchange professors, the hospitable and sympathetic reception which each professor would receive, the contributions which each would make in the press, by means of articles in magazines and perhaps in book form, would undoubtedly be of great service to the public, which, after all, determines international relations in all countries possessing constitutional and representative governments.

Heretofore the advantages likely to accrue from the interchange of professors has been considered; but the results reasonably to be expected from the interchange of students in the universities and academies of the American Republics, can not be overestimated, for students in the formative period are peculiarly impressionable by their intellectual and social environment. The education of young men picked from the various American Republics would necessarily make them friends of the countries in which they studied, sympathetic expounders of the institutions and enlightened critics of the Governments with which they were made familiar. Not a little of the friendliness existing between certain European countries and the United States is due to the residence of American students in foreign countries and at foreign universities. We may, therefore, confidently expect like, indeed greater, results from the interchange of American students, and predict, with very considerable certainty, the popularization of institutions of the Americas and of educational methods. In a word, intellectual, political, and social understanding is destined to result from their presence in the various American Republics.

It is a truism that misunderstanding often arises from the lack of acquaintance of the contending parties, and the exchange professors, by disseminating knowledge, by bringing the various peoples into close social and intellectual contact, would go far to disarm suspicion and to

create sympathetic and permanent bonds of friendship. The system of exchange professorships would not only supplement diplomatic effort in bringing about friendly relations but would increase them in force and intensity, and upon a basis of common understanding derived from personal knowledge, interchange of thought, and a comprehension of American ideals, exchange professors would tend to draw all portions of the American Hemisphere into closer contact.

In regard to the proposed exchange of professors and students, it should be said in this connection that in 1909 the Honorable PHILANDER C. KNOX, when Secretary of State of the United States, directed that the subject be laid before the Governing Board of the International Bureau of the American Republics "not only for discussion and consideration but, if approved, for the elaboration of the details necessarily incident to the establishment of exchange professorships in Pan America." The Governing Board approved the proposal and it was included in the program for the Fourth International Pan American Conference, and Mr. KNOX instructed the North American delegates to that Conference, which met at Buenos Aires, July 10, 1910, to give their "hearty support to any practical plan tending to this end which may be devised," stating that "an exchange of professors and students among the universities and academies of the American Republics will undoubtedly promote mutual intellectual and social understanding and sympathy."

As a result of this enlightened and persistent action on the part of Mr. KNOX, the subject was considered at the Conference at Buenos Aires which adopted the following resolutions:

The Fourth International American Conference, assembled at Buenos Aires, resolves;

I. To recommend to the Governments of America in regard to their public Universities and to the Universities recognized by those Governments, that they establish the interchange of professors on the following principles:

First. The above-mentioned Universities shall grant facilities for professors sent from one to another for the holding of classes or giving lectures.

Second. Such classes or lectures shall treat chiefly of scientific matters of interest to America, or relating to the conditions of one or more of the American countries, especially that in which the professor is teaching.

Third. Every year the Universities desiring the interchange shall give notice to each other of the matters of which their professors can treat and of those which they desire to be treated of, respectively, in their classes.

Fourth. The remuneration of a professor shall be paid by the university which has appointed him, unless his services shall have been expressly requested, in which case his remuneration shall be charged to the University which has engaged his services.

Fifth. The Universities shall determine annually the amount, to be taken from their own funds, should they have any, or to be asked from their respective Governments, for the costs incurred in fulfillment of the terms of this Resolution.

Sixth. It is to be desired that the Universities of America should assemble at a Congress to provide for University extension and other means of American intellectual cooperation.

II. The Fourth International American Conference being of the opinion also that it would be well for the strengthening of the solidarity of the Nations of the Continent that there should be an interchange of students between the American Universities, resolves:

1. To recommend that the Universities of America should create scholarships in favor of students of other countries of this same Continent, with or without reciprocal charges, adopting, either directly or through the Government on which they are dependent, the necessary measures for the practical carrying out of this agreement.

2. Each University which shall have created such scholarship shall appoint a committee to be charged with the care of the students to whom such scholarships have been given, to direct their studies and to lay down the rules necessary to secure due performance of their duties.

3. The Universities so attended by a foreign student shall enter him in his corresponding course in conformity with the plan of studies and the respective regulations.

The advantages mentioned by Secretary KNOX of the exchange of professors and of students, and which were evident to the official delegates of the American Republics in conference at Buenos Aires, are as clear if not clearer to-day than they were then, and the Congress stood on solid and incontrovertible ground when it not merely approved the project but extended it to educators of all grades and to students of universities, normal, and technical schools. It will be noted that the language of Article 19 is not that of a mere recommendation. It is more urgent, more personal, if the expression may be allowed in relation to Governments, because the partisans of the exchange of professors and students as outlined in the article are "to petition the Governments of the American Republics to further the exchange." It is to be hoped that the petition of the Congress will not fall upon deaf ears.

ARTICLE 20. The Second Pan American Scientific Congress suggests that—

The presidents of the leading architectural societies of this hemisphere shall be requested to communicate with one another for the purpose of forming a Pan American federation of architectural societies.

Such federation should hold conferences in different countries at stated periods.

The present article is a recognition, as applied to architects, of the truism that in union there is strength, and that in order that there may grow up in the Americas the traditions and canons of the art worthy of the American Republics, the Section of Engineering drafted this article, believing it to be of vast educational and professional import. It is of course not to be understood that in advocating a federation of architectural societies it would be possible, by the exchange of views of the accredited representatives of the different countries in the conferences to be held in accordance with the article, to introduce uniformity in architectural design and structure. Without attempting in any way to discuss the conditions of architecture or to lay down its canons, it must be evident, even to the casual reader, that architecture is largely conditioned by environment. A style of architecture eminently appropriate for those portions of America where the winters are severe and much of the ground covered by snow would be equally inappropriate for the more tropical regions of the continent. By the personal intercourse of architects and by the resultant exchange of views the Congress believed that the standard of architecture as an art would be raised, and ventured the hope, without, however, daring to voice it, that in the course of time the graceful and substantial structures of the New World may stand upon a plane of equality with those of the Old, and mayhap of the ancient world.

ARTICLE 21. The Second Pan American Scientific Congress recommends that—

There be published a series of volumes entitled the "Pan American Library," with the object of popularizing, in the several languages spoken on the continent, the best scientific, literary, and artistic works of American authors.

It is a trite remark that community of spirit is one of the strongest ties which can exist among men and peoples, and the sentiment of union which already exists in the whole American Continent can be, it is believed, greatly augmented and solidified by the establishment of a Pan

American Library such as is recommended by this article. It will be seen from an inspection of its wording that it relates exclusively to the American Continent, because the works to be popularized are not the productions of foreign authors, for if Secretary KNOX'S happy statement is to be taken literally as well as figuratively that "geographically America is a unit; commercially each of its members is being brought into more frequent contact; intellectually each should contribute to the knowledge of each and to the advancement of all."

The scope of this article is very broad, although it consists of but a few lines, namely, to collect from time to time the best scientific, literary, and artistic works of American authors, meaning by "American authors" writers of each and every one of the American Republics, to have the works considered worthy of a wider circulation and a more varied public, translated not into any one particular language but into any and perhaps all of the languages spoken in the Western world, namely, Spanish, Portuguese, French, and English. The word "library" is not used in the sense of an institution, of a building in which the books may be collected and consulted by readers, but in the sense of an apt title by which the series should be known, and it is broad enough to include magazines and periodicals and articles of value which they may contain.

There is no doubt a willingness to believe on the part of the authors of North America that the publication and popularization of their works in the other American countries would be as advantageous to the reading public thereof as it would be pleasing to the writers; and the same might be said of the authors of each and every American country. The purpose, however, of this article was not to secure the translation and circulation of the works produced in any one country to the exclusion of the works produced in any other country, or indeed in all other American countries. The purpose was rather to call the attention of the reading and scientific public to the fact that scholars, scientists, literateurs, and men of taste and refinement of all of the American Republics are contributing to the intellectual treasures of the Americas and that, in the interest of a common civilization and of a common culture, works of merit of the kind specified should be placed at the disposal of persons in the different countries who might profit by them, but who might not have either the inclination or the time to master the languages in which they have been written and published. The Congress contented itself with recognizing the importance of such an undertaking; it did not and it could not determine the details, which are left to the enlightened enterprise and judgment of the publishers of the American Continent.

ARTICLE 22. The Second Pan American Scientific Congress, confirming the resolution adopted at the First Pan American Scientific Congress of 1908–9, recommends the organization in connection with the Pan American Union of a department of education, which shall—

(*a*) Be intrusted with the publication, in Spanish, Portuguese French, and English, of such works on education as are of importance to the American countries;

(*b*) Keep the different Republics in touch with educational progress;

(*c*) Promote in each country the scientific study of educational problems from both national and American standpoints;

(*d*) Facilitate the interchange of ideas and information among the teachers of the continent, and in general serve the educational interests of the Americas.

The introduction to this very important recommendation of the Congress calls attention to the fact that it is a confirmation of the resolution adopted by the First Pan American Scientific Congress of 1908–9. The importance of educational cooperation has long since been recognized and was stated by the Third Latin American Scientific Conference, held at Rio de Janeiro in 1905, at a time when such reunions were confined to the inhabitants of Latin America. The resolution of the First Pan American Scientific Congress, to which reference is made, is as follows:

> That, in accordance with the resolution of the Third Pan American Conference the several Governments be requested to provide for the creation in the International Bureau of the American Republics of a Pan American department of education, which shall be charged with the duty of publishing in English, Spanish, and Portuguese all treatises and works on education which may possess a Pan-American interest, and of subserving all other educational interests in America.

The recommendation of the present Congress is calculated not merely to give effect to the resolution of its immediate predecessor, but at one and the same time to give effect to the resolution of the Third and Fourth International Conference of American States, held, respectively, at Rio de Janeiro in 1906 and at Buenos Aires in 1910, authorizing the International Union of the American Republics "to supply information on educational matters."

In order to render effective the recommendation for the interchange of educators and of students of the Americas, there should be some specific organization whose duty it should be to take the necessary steps and to provide the necessary information upon which the success of the interchange must depend. As to the necessity of some organization

devoted exclusively to these purposes, there can be no two opinions, but there may well be a divergence of views as to whether the organization should be connected with the Pan American Union, which is a diplomatic body, or whether it should be a separate and distinct organization having the confidence of the Governments of the Americas, but not subject to their control or dictation, as must necessarily be the case in a diplomatic or political organization. In other words, the question which meets us upon the threshold is whether the functions if not the scope of the Pan American Union should be increased by imposing upon it the duties contained in this article and assigning them to what the article calls a department of education thereof, or whether there should be formed for educational purposes a union comparable to the American Institute of International Law, which is a private organization uniting the national societies of international law existing in each of the American Republics, in which the Governments are interested by reason of the services which the Institute can render, but in which and over which the Governments exercise no control.

It would be inadvisable, and indeed it would be out of place, to pursue this matter further, as the Congress recommends that the existing machinery of the Pan American Union be used and that there be created in the Pan American Union a department of education. This recommendation is, as already pointed out, in accordance with the resolution of the Third and Fourth International American Conference authorizing the Pan American Union, among other things, "To supply information on educational matters," and with the convention adopted by the Fourth Conference and since approved by the Governments of the American Republics, declaring, in Article II thereof, as one of the purposes of the Pan American Union, to be "To compile and distribute information and reports concerning * * * educational development." It is therefore clearly within the competence of the Pan American Union to assume and to perform the duties sought to be conferred upon it by the Congress, whereby the Union shall become the agent of the American Republics in educational matters.

It is of interest to note, in this connection, that the proposal to create a department of education of the Pan American Union for the purpose set forth in the article was made by one very familiar with the aims, purposes, and procedure of the Union, namely, the President of the Congress, His Excellency Sr. Eduardo Suárez-Mujica, the Chilean Ambassador. It is difficult briefly, and within the compass of this report, to comment upon the specific clauses of this very important article, for, taken together, they state in general the duties of a Minister

of Public Instruction in any one of the American Republics, and, in addition, the duties and functions of a Ministry of Public Instruction for the twenty-one American Republics. It is for this reason that the question has been raised in this report, in passing, without attempting to decide it, whether the question of education is not of sufficient importance to establish a union which should be devoted singly and solely to the consideration of educational questions rather than to make it an incident of a union busied with other and important duties.

But to pass to the duties which any organization must assume and perform in order to give effect to the article. It will be noted that, in the first place, a careful study and investigation and report must be made of treatises dealing with education, and it will be observed that no limitation is placed upon the nature and extent of the study and investigation, other than that such works are to be "of importance to the American countries." Non-American publications are, therefore, to be considered, as well as the Pan American literature on the subject, and, after such study, investigation and report, such works as are deemed to be of importance are to be published either by or under the direction of the department, in Spanish, Portugese, French, or English.

To accomplish this single purpose requires a very effective organization and careful and painstaking study and devotion, but it would seem that this is a prerequisite to the success of the undertaking, because it is essential that educators of the different countries should have at their disposal and placed before their eyes such works on education as are of importance to the American countries, in order that American educators may be national agents in the execution of an international policy.

In the second place, it is to be the duty of the department of education to "keep the different Republics in touch with educational progress," which is a very brief statement of a very difficult duty. Put in simple terms, this clause requires the organization to collect and to classify the facts of educational progress in every one of the American Republics and to distribute such facts in a classified and systematic form to the appropriate authorities thereof.

In the third place, the organization is required, not merely to survey the literary field, to examine and to report the details of educational progress, but it is specifically charged with the duty of promoting, in each of the twenty-one American Republics, the scientific study of educational problems; that is to say, the organization is to perform the functions of a Minister of Education for each country.

But this is not all, because the problems are to be examined and studied, not merely from a national but from a Pan American standpoint, thus

elevating the organization to the rank and investing it with the duties of a Ministry of Education for the twenty-one sovereign and equal Nations of the American Continent.

Finally, for fear lest something should be overlooked, the article contains what may be considered a blanket clause, as, in addition to the specific duties enumerated in clauses (*a*), (*b*), and (*c*), the organization is to "facilitate the interchange of ideas and information," not merely among the Governments, but among the teachers of the continent, thus going into direct contact with the leaders of educational thought in the Americas.

The article creates a duty under which the broadest shoulders are likely to bend; yet more than this is required of the organization, for it is "in general to serve the educational interests of the Americas." That is to say, the organization is to give effect to the specific purposes enumerated in sections (*a*), (*b*), (*c*), and (*d*) of the article and, in addition, it is to stand forth as the directing, if not the controlling, agent of the general educational interests of the Americas.

Every friend of Pan Americanism who believes in the possibilities of intellectual cooperation, and who sees in education the hope of mankind, will welcome this article, and every friend of the Americas will express the hope and the fervent prayer that the organization created to render this recommendation effective will be such as to insure its success, lest failure should seem to question the possibility of realizing these generous and eminently feasible recommendations, which are, as it were, the threshold to the successful intellectual cooperation of the Americas.

ARTICLE 23. The Second Pan American Scientific Congress recommends, in order to increase the study of international law, to popularize its just principles, and to secure its observance and application in the mutual relations of the Americas, that steps be taken to improve and to enlarge library and reference facilities:

(*a*) By preparing and publishing a bibliography of international law and related subjects, furnishing the names of publishers and prices so far as these are obtainable, with special reference to the needs of poorly endowed libraries;

(*b*) By preparing and publishing a carefully prepared index or digest of the various heads and subheads of international law, with references to standard sources of authority under each head and subhead thereof;

(*c*) By collecting with the aid wherever possible of ministries of foreign affairs and publishing from official copies thus secured, in cheap and convenient form, all official documents, both

foreign and domestic, bearing upon international law, including therein treaties, information relating to arbitration, announcements of national policy, and diplomatic correspondence;

(*d*) By issuing in the form of law reports judgments of national courts involving questions of international law, the sentences of arbitral tribunals and the awards of mixed commissions.

The subject of the study of international law was considered in very great detail at a conference of American teachers of international law, held at the city of Washington in the month of April, 1914, under the auspices of the American Society of International Law. Forty-one institutions of learning of the United States accepted the invitation to be present and sent accredited representatives to take part in the proceedings.

The result was a series of recommendations, unanimously adopted by the conference, which form the basis of the present articles relating to the study of the law of nations, with omissions and other modifications in order to make the recommendations apply to the Republics of the American continent instead of applying solely to the Republic of the North in which the conference of teachers was held.

In an article written by the Honorable ELIHU ROOT when Secretary of State, and published as the introduction to the first number of the American Journal of International Law in 1907, he called attention to the conditions required for the settlement of international disputes without resort to war, stating that the people of the countries involved should be able to weigh the controversy and to appreciate the action of their representatives in an instructed and reasonable way, and stating also that one means of bringing about this instructed and reasonable way was by means of a wider and broader knowledge of the principles of international law and by the creation of an international habit on the part of the people of reading and thinking about international matters. The language of Mr. ROOT on this point is, if possible, the more important, as when uttering it he was speaking under the responsibility of office, shortly after his return from his visit to Latin America. It therefore seems advisable to quote two paragraphs from the article as a general introduction to this section of the report:

> In the great business of settling international controversies without war, whether it be by negotiation or arbitration, essential conditions are reasonableness and good temper, a willingness to recognize facts and to weigh arguments which make against one's own country as well as those which make for one's own country; and it is very important that in every country

> the people whom negotiators represent and to whom arbitrators must return shall be able to consider the controversy and judge the action of their representatives in this instructed and reasonable way.
>
> One means to bring about this desirable condition is to increase the general public knowledge of international rights and duties and to promote a popular habit of reading and thinking about international affairs. The more clearly the people of a country understand their own international rights the less likely they are to take extreme and extravagant views of their rights and the less likely they are to be ready to fight for something to which they are not really entitled. The more clearly and universally the people of a country realize the international obligations and duties of their country, the less likely they will be to resent the just demands of other countries that those obligations and duties be observed. The more familiar the people of a country are with the rules and customs of self-restraint and courtesy between nations which long experience has shown to be indispensable for preserving the peace of the world, the greater will be the tendency to refrain from publicly discussing controversies with other countries in such a way as to hinder peaceful settlement by wounding sensibilities or arousing anger and prejudice on the other side.

At the Conference of Teachers of International Law, under the presidency of Mr. ROOT, he delivered an address in which, while dwelling upon the importance of international law, he called attention to the fact that more and more democracy was coming to its own and that unless democracy were educated in its duties as well as in its rights it would not render the services which could properly be expected of it and which would justify its existence. On this particular point he said:

> I think no one can study the movement of the times without realizing that the democracy of the world—for it is not alone in this country—is realizing its rights in advance of its realization of its duties. And that way lies disaster. That way lies hideous wrong. That way lies the exercise of the mighty powers of modern democracies to destroy themselves, to destroy the vitality of the principles upon which they depend. And there is no duty more incumbent to-day upon the men whose good fortune has made it possible for them to acquire a broader knowledge upon the subjects with which democracy deals, than to become themselves leaders of opinion and teachers of their people. Unless the popular will responds to the instructed and competent leadership of opinion upon the vital questions of our foreign relations, the worst impulses of democracy will control. At the bottom of wise and just action lies an understanding of national rights and national duties. Half the wars of history have come because of mistaken opinions as to national rights and national obligations, have come from the unthinking assumption that all the right is on the side of one's own country, all the duty on the side of some other country. Now, I say the thing most necessary for the good of our country in the foreign relations which are growing every year more and more intricate and critical, is that there shall be intelligent leadership of opinion as to national rights and national obligations.

These quotations have been made, both from the article and the address of Mr. ROOT because they justify of themselves the recommendations made by the Congress in regard to international law. The recommendations are twofold: First, to broaden and deepen instruction in international law in American seats of learning; and second, to reach the peoples of the American Continent, impressing them with their duties in matters international and instructing them in their international rights.

The four headings of Article 23, numbered respectively (*a*), (*b*), (*c*), and (*d*), are meant to furnish teacher and student with necessary information concerning the books and treatises dealing with international law; to supply the references to standard sources of authority on the different headings of international law; to secure the official documents, both foreign and domestic, issued by the various Governments bearing upon international law, relating to treaties, arbitrations, and the international policy of the different governments; and to place at the disposal of teacher and student decisions of national and of international courts involving questions of international law. Experience shows that it is difficult to keep abreast of treatises and monographs dealing with international law, issued from time to time in different countries and in various languages, and that it is no easy matter to obtain these books and monographs unless the prospective purchaser has relations with the libraries or publishers of the different foreign countries in which they appear. The Congress felt that the publication of a carefully prepared bibliography of international law and related subjects, giving the names of publishers and prices, would tend greatly to popularize international law and bring the items contained in the bibliography not only to the notice of the libraries where the books in question were not to be found, but also exert indirect but substantial pressure upon these libraries to procure the publications for the benefit of their readers.

It often happens that the reader of a newspaper becomes interested in the subject of which he is reading and would like to obtain additional information if he had at hand a ready-reference manual. This is particularly the case at the present day, when questions of international law are uppermost in the minds and thoughts of men and when they occupy such a prominent place in the daily press. A manual or treatise of international law is not always at hand, and in the changing conditions of international life and experience many topics which were unknown a decade ago and which are unmentioned in recent works of authority are of the utmost importance at the present day. An index or digest, brought up-to-date and kept up-to-date of the various heads and subheads in

international law, with references to all standard sources of authority upon each head, would be of no little service in enabling journalists to create a correct public opinion and in enabling the readers to follow up a subject which interested them, and by so doing to take part in creating the enlightened public opinion upon which the administration of justice is so largely founded.

The importance placed upon public opinion by countries which are unfortunately at war is evidenced by the fact that each of them has published the telegrams and other documents, either in whole or in part, exchanged by them before the outbreak of the great war in the summer of 1914, and it is a fact that these documents are issued by the belligerent Governments not only in their own but in foreign languages, which can only mean that the appeal is made not merely to their citizens or subjects but to enlightened and instructed opinion in foreign countries in the hope of winning its support.

The Congress recognized the importance of a knowledge of the diplomatic correspondence bearing upon international law, of treaties, and of the authoritative statements of national policy issued by Governments, by recommending that copies of such documents be secured from ministries of foreign affairs, and that they be published in cheap and convenient form, so that they may not only reach the hands of professional students but that they may fall also under the eye of the general, and indeed of the casual, reader. Knowledge of this kind is especially valuable to democracies where in last resort the people pass upon the acts of the government and where the issues of war and peace depend upon the enlightenment or ignorance of the public. It is not enough that documents of this kind be made public; they must be circulated if the actions of the government are to be weighed with intelligence; and unless they are issued in cheap and convenient form they will not be circulated and will be little better than secret documents preserved in archives beyond the reach of the public.

It is common knowledge that international law has a preferred position in the jurisprudence of the American Republics; that, whether by constitution, statute or custom, it is regarded as a part of the law of each country and is administered as national law in cases depending upon its application. This is believed to be the case in varying degrees in other civilized countries. This being so, it is natural that many and important principles of international law are to be found in domestic judgments, and as an illustration of this it may be said that upon calculation, there are some twenty-eight hundred cases, decided by the Supreme Court of

the United States since the organization of the Supreme Court in 1789, which involve in a larger or lesser degree principles of international law. It is therefore of very great importance for the future of international relations to understand clearly that international law is thus susceptible of judicial interpretation (because it has been interpreted and applied judicially not only in one country but in the countries generally) and that there already exists a large body of judicial precedent, not merely in prize cases but in all justiciable cases involving questions of international law, for the guidance of that international court which will one day administer justice between the nations, as national courts administer justice between man and man in every country making a pretense to civilization.

These judgments, although not gathered together in any one place, are nevertheless to be found in the reports of judicial proceedings, and it would be a very great service if these decisions were collected in appropriate volumes and placed at the disposal of professed students of international law. But it is of equal if not of greater importance that the sentences of arbitral tribunals and the awards of international commissions be collected and published, in addition to the judgments of national courts involving questions of international law, in order that the students of any one country may have before them the adjudged cases dealing with international law, whether by national courts, arbitral tribunals, or mixed commissions.

The Congress therefore recommended that a law reporter of international cases be issued. To explain exactly the meaning of this recommendation, it should be borne in mind that the judgments of the Supreme Court of the United States are issued in official reports and that the decisions of the Federal and the State courts are likewise published serially in permanent form. It is proposed that an international reporter should do for the decisions of international and national courts turning upon questions of international law what the various reports issued in the United States have done for the decisions of Federal and State courts. It is difficult to overestimate the service which collections of the older decisions and of the future holdings of national and international courts would render to the cause of international justice and the very great impetus which such collections would give to the establishment of an international court of justice, by showing that international law can be interpreted and applied judicially in the future because it has been so interpreted and applied in times past as well as in the immediate present.

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ARTICLE 24. The Second Pan American Scientific Congress is of the firm conviction that, as the idea of direct government by the people grows, it becomes increasingly essential to the well-being of the world that the leaders of opinion in each community be familiar with the duties and obligations as well as with the rights of States, as recognized in international law, and that it has become a patriotic duty resting upon our educational institutions to give as thorough and as extensive courses as possible in international law and related subjects. The Congress therefore recommends:

I. That steps be taken to extend the study of the subject:
   (*a*) By increasing the number of schools and institutions in which international law and related subjects are taught;
   (*b*) By increasing the number of students in attendance upon the courses; and
   (*c*) By diffusing a knowledge of its principles in each American Republic.

II. That a course in international law, where possible, should consist of systematic instruction during at least a full academic year, divided between international law and diplomacy; and

III. That prominent experts in international law and diplomacy be invited from time to time to lecture upon these subjects in the institutions of learning of the American Republics.

The recommendation in Article 24 is general in its nature and is aimed to supply not only professional students but the general public with information useful to both in forming what Dr. NICHOLAS MURRAY BUTLER has aptly termed "the international mind." The recommendations under this article are specific in their nature and aim to increase instruction in American institutions of learning where courses of international law are given, and to secure the introduction of courses on international law and diplomacy in institutions where they unfortunately are not given at present. The purpose of this section is not so much to scatter the principles of international law broadcast among the people as to impress students at American institutions of learning with the importance of international law and its principles, so that the leaders of opinion, who may have studied in American institutions of

learning, may, while they are still open to conviction, be impressed with the necessity of a knowledge of international law and of international relations.

The Congress regarded knowledge of international law as not merely useful but as essential, and declared it to have become, by reason of the democratic control everywhere existing in the western continent, a patriotic duty.

In prescribing that systematic instruction which should be offered during a full academic year and that the course should include international law and diplomacy, the Congress did not mean that only one year should be devoted to international law and that the course should be devoted only to international law, in the technical sense of the term, and to diplomacy. The Congress had in mind the minimum, not the maximum, of instruction, and declared its opinion that, to be effective, the course of instruction should not be confined merely to the principles of international law in the abstract but that instruction should be given in diplomacy and in the fundamental principles of foreign policy, so that the student might understand the agency by which the principles of international law are applied in the relations between countries and the policies which nations pursue among themselves. No maximum of instruction is stated, as that must necessarily depend upon the universities and upon the students, but it is clear from the recommendations already cited, and to be referred to later, that the Congress fully appreciated the importance of careful and thorough training in the principles of international law and of an adequate understanding of the workings of diplomacy, both by the public generally and especially by those whose good fortune it may be to create and to guide public opinion.

The Congress recognized the fact, familiar to all who have had to do with the class room, that students like to hear those who have had experience in international law discourse upon its principles and its application. The professor without experience in the actual conduct of affairs may be more deeply versed in what is called book learning than the international lawyer or the professional diplomatist, and yet the latter create an interest and an enthusiasm by virtue of their experience and the confidence which they create beyond the reach of the academician. The Congress therefore recommended that international lawyers, termed experts in international law, and that preferred diplomats be invited from time to time to lecture upon the subject at the several institutions.

ARTICLE 25. The Second Pan American Scientific Congress, in order to place instruction in international law upon a more uniform and scientific basis, recommends that:

(*a*) In the teaching of international law emphasis be laid upon the positive nature of the subject and the definiteness of the rules, for whether the teaching of international law be regarded as of value as a disciplinary subject or from the standpoint of its importance in giving to the student a grasp of the rules that govern the relations of nations, it is equally important that he have impressed upon his mind the definiteness and positive character of the rules of international law; that the teaching of international law be not made the occasion for a universal peace propaganda; that the interests of the students in and their enthusiasm for the subject can best be aroused by impressing upon them the evolutionary character of the rules of international law, for through such a presentation of the subject the student will not fail to see that the development of positive rules of law governing the relations of States has contributed toward the maintenance of peace.

(*b*) In order to emphasize the positive character of international law the widest possible use be made of cases and the concrete facts of international experience, for the interest of students can best be aroused when they are convinced that they are dealing with such concrete facts, and that the marshalling of such facts in such a way as to develop or illustrate general principles lends dignity to the subject, which can not help but have a stimulating influence; that international law should be constantly illustrated from the sources recognized as ultimate authority, such as cases both of judicial and arbitral determination; treaties, protocols, acts, and declarations of epoch-making congresses, such as Westphalia (1648), Vienna (1815), Paris (1856), The Hague (1899 and 1907), and London (1909); diplomatic incidents ranking as precedents for action of an international character; and the great classics of international law.

(*c*) In the teaching of international law care be exercised to distinguish the accepted rules of international law from questions of international policy.

(*d*) In a general course on international law the experience of no one country be allowed to assume a consequence out of proportion to the strictly international principles it may illustrate.

Just as Article 24 urged an increase of the instruction in international law and diplomacy, so Article 25 urges that the instruction itself be more thorough, be more detailed, and be more efficient than heretofore.

Section (*a*) recommends that the positive nature of international law and the definiteness of its rules be emphasized—and wisely, because if international law is not law but a system of morality, of ethics, of philosophy or of history, it has no place in positive jurisprudence, and it can make no claim to a standard of conduct by which the rights and duties of nations are to be measured. If the definiteness of the rule be not impressed upon the student, he is left with the erroneous conception that international law is a loose and disjointed system, if system it is to be called, instead of a system of law whose rules are definite as far as they go, and whose imperfections are due to the fact that it is a growing not a completed system as is the case with municipal law.

In stating that the teaching of international law should not be made the occasion for a universal peace propaganda, the Congress meant to convey the idea that through the application of the principles of justice to the relations of nations, peace necessarily results, just as the peace of the community depends upon the existence of principles of justice and their application to the disputes that arise among the people composing the community. International law should, in the opinion of the Congress, be taught as a system of jurisprudence, as a means of realizing justice, and not perverted to the advocacy of peace as such, although the highway to peace does undoubtedly run through justice.

That the Congress had in mind the services which international law could render to the cause of peace is seen in the recommendation that the evolutionary character of the rules of international law should be impressed upon the student, showing how, with the development of rules of law, order, and equilibrium have resulted. The Congress, however, felt that the influence of rules of law, governing the relations of equal but interdependent nations would best be seen by a study of the development of the rules and their consequences; and it therefore stated that such a presentation was best calculated to show how "the development of positive rules of law governing the relations between States has contributed toward the maintenance of peace." In a word, the study of international law should be scientific, it should not be propagandistic.

The Congress was exceedingly anxious that international law should not be studied as an abstract system of rights and duties, but that it should take note of the concrete facts of international experience. It therefore recommended in Section (*b*) that the widest possible use be made of actual cases and incidents, in order that the positive character of international law be demonstrated, and that it be held up as the measure of international right and of international duty. It appreciated that the enthusiasm of the students should be aroused and that their interest could best be sustained if they dealt with actual not with hypothetical cases, and if they saw that they were dealing with a practical not with a theoretical science. It was felt that such a point of approach was calculated to lend dignity to the subject and to stimulate and to maintain the interest of the student.

The Congress, advocating the concrete, dealt in the concrete, and specified the sources which should be used in order to create and to stimulate interest, and which it ventured to call the ultimate sources of authority. In the first place, it called attention to the judgments of courts and to sentences of arbitral tribunals, and although judgments of courts and arbitral awards are not usually given the first place among the sources of international law, it is believed that the Congress was right in assigning them this unusual rank, because the judgment of the court is decided by professional judges without interest in the subject in dispute and according to principles of law which have stood the test of time; and in the same way, although perhaps in a lesser degree, the award of arbitral tribunals and of mixed commissions are the holdings of persons of different countries, and the decision is reached at least by a majority of disinterested persons, bringing to the performance of their task an international outlook. The same can not be said of diplomatic incidents, which figure so prominently among the sources and which are often the concessions of the weak to the strong, rather than the passionless application of principles of justice. They can not, however, be ignored, for, right or wrong, they are milestones in the evolution of international law.

In the next place, treaties, protocols, acts and declarations of epoch-making congresses are recommended as a source of authority and as a means of illustration. Naturally the congresses mentioned are those of Westphalia, Vienna and Paris, and it is especially encouraging to observe that a Congress composed of American delegates ventured to proclaim The Hague Conferences as sources of international law and to confess their faith in them at a time when many partisans of international organization are discouraged at the present and despondent of the future.

In the next place, diplomatic incidents of an international character are recommended for study and discussion, although they can not compete with judgments of courts and holdings of arbitral tribunals and mixed commissions, as they are too often the concessions of the weak to the strong rather than the passionless application of the principles of justice. Finally, the classics of international law are recommended, for the great writers on international law have not only expounded the law of nations but they have also made and enlarged the law which they professed to expound. By a study of their masterly productions, beginning with the philosophers and canonists of the Middle Ages, including FRANCISCO VICTORIA, AYALA, GENTILIS, and SUÁREZ, the predecessors of GROTIUS, the immortal three books on the right of war and peace by the illustrious GROTIUS himself, and the works of his successors, we see how the little stream, fed by many sources, has grown into a mighty torrent, colored it may be by the soil over which it flows but reaching with irresistible force the ocean.

The Supreme Court of the United States, declared in the case of the *Paquete Habana* (176 U. S., 677), decided in 1899, that "international law is part of our law, and must be ascertained and administered by the courts of justice of appropriate jurisdiction, as often as questions of right depending upon it are duly presented for their determination." The opinion, delivered by a very learned judge, the late Mr. Justice Gray, then proceeded to enumerate the sources of authority as follows:

> For this purpose, where there is no treaty, and no controlling executive or legislative act or judicial decision, resort must be had to the customs and usages of civilized nations; and, as evidence of these, to the works of jurists and commentators who, by years of labor, research and experience, have made themselves peculiarly well acquainted with the subjects of which they treat. Such works are resorted to by judicial tribunals, not for the speculations of their authors concerning what the law ought to be, but for trustworthy evidence of what the law really is.

Supplementing the enumeration of sources of authority which the Congress ventured to make by the decision of the learned justice of the Supreme Court in deciding the case of the *Paquete Habana* we have a firm and a sure measure of international right and of international duty, and of the means of ascertaining it in almost any case.

The Congress, it will be recalled, recommended that particular stress should be laid upon the positive nature of international law and the definiteness of its rules. This recommendation appears in a slightly different form in Section (*c*), where the Congress advises that the lines be clearly drawn between the accepted rules of international law on the one hand and questions of international policy on the other hand.

It is not difficult to illustrate what the Congress had in mind in this recommendation, and it is perhaps neither necessary to cite an illustration nor to enlarge upon the importance of the recommendation. The distinction is between law and policy, a distinction which citizens of a particular country are apt to forget in their eagerness to justify the contentions put forward by their country on any and every occasion. The test of law is not policy, rather the test of policy is law. Much is lost by their confusion; everything is gained by separating them and, when separating them, by discussing them in their various elements and in all their bearings.

And finally, in dealing with this phase of instruction, the Congress advised that the experience of no one country should be dwelt upon to the exclusion of the experience of other countries. For if international law be in reality the law of nations it is universal and it should be studied in its universal applications, although it may often be most entertainingly it not best illustrated by examples taken from the experience of the home country. In so doing, however, great care should be exercised, in the present unsatisfactory state of affairs, because, while international law is universal, it is interpreted by each nation and is not infrequently perverted in the process. In any event, the precedents of no one country should be studied to the exclusion of precedents from other countries; otherwise a belief is likely to grow up in the mind of the student that his country is the favorite home of international law and the international is likely to yield to the national aspect.

ARTICLE 26. The Second Pan American Scientific Congress, in order still further to advance the cause of international law and the development of international justice, recommends that a major in international law in a university course, leading to the degree of doctor of philosophy, be followed if possible by residence at The Hague in attendance upon the Academy of International Law, installed in 1914 in the Peace Palace in that city; and that, as no better means has been devised for affording a just appreciation of the diverse and conflicting national views concerning international law or for developing that "international mind" which is so essential in a teacher of that subject, as many fellowships as possible should be established in the Academy at The Hague and put at the disposition of advanced students of international law in the different American Republics.

In addition to courses of international law in national institutions the Congress recommends the advantage of studying international law in

what may be called an international institution, in order that the conception of international law may, as it were, be internationalized.

A distinguished teacher of the law of nations has said:

> It is to be deplored that many writers on the law of war and neutrality should take every opportunity of displaying their political sympathies and antipathies, and should confound their own ideas of justice, humanity, and morality with the universally recognized rules of warfare and neutrality. French books often contain denunciation of the Germans and the English; English books—Hall's classical treatise furnishes at once an illustration and a warning—frequently condemn the Germans and the Russians; and the Germans on many occasions retaliate by reproaching the French and the English.[1]

This tendency to defend the policy of one's own country is the more insidious because it is often unconscious, and the best way, it is believed, to overcome this tendency seems to be to come into contact with teachers of reputation of different countries in some international institution, where the bias of one, if it exist, may be offset by the views of another teacher of equal repute and of a different nationality.

On the 12th day of January, 1914, the Academy of International Law was founded at The Hague, and arrangements had been made for its formal opening on the 1st day of October, 1914. It was not opened on that date, for reasons which need not be mentioned in this connection. It should be said, however, that arrangements had already been made for courses of instruction by distinguished teachers and professors of international law drawn from different countries, as it is a fundamental rule of the Academy that no two instructors should be chosen during one and the same period from the same country. The student body was to be drawn from advanced students of different foreign countries, and it was believed by the most distinguished publicists that, by the presence of professors selected from different countries and by the intercourse of students, likewise coming from different countries, the horizon of the professors would be broadened and their views, as well as the views of the students, internationalized. The great experiment remains to be tried, as the Academy is to be opened in the Peace Palace at The Hague at no distant date, and the students will, it is to be hoped, press in increasing numbers to this Mecca of internationalism.

Arrangements were in contemplation and indeed well under way to establish one or more fellowships in all countries parties to The Hague Conventions, so that young men planning to engage in the practice of international law or to devote themselves to diplomacy might perfect their studies at this international center. For the time being the process

[1] Oppenheim, International Law, 1st ed., vol. ii, p. vii.

is delayed and the doors of the Academy are closed, but it is not too much to hope that they will swing open on a happier morrow, and that in the Peace Palace at The Hague, where justice is administered by the Permanent Court of Arbitration between nation and nation, the principles of international law will be taught by accredited teachers thereof drawn from the various countries of the world to a student body likewise coming from afar.

ARTICLE 27. The Second Pan American Scientific Congress expresses the opinion that the present development of higher education in the American Republics and the place which they have now assumed in the affairs of the society of nations justify and demand that the study of the science and historic applications of international law be treated on a plane of equality with other subjects in the curriculum of colleges and universities, and that professorships or departments devoted to its study be established where they do not exist in every institutionof higher learning.

The Congress calls attention to the development of the higher education in the American Republics and to the place which these Republics assume in the affairs of the society of nations. It squarely states its measured judgment that international law is a science; that in its historic applications it should stand upon a plane of equality with other studies in the curriculum of American institutions of learning, and that professorships or departments devoted to the study of international law of international relations should be created in every higher institution of learning in the American Continent where they do not already exist.

It has long been the habit of a certain type of mind to question the existence of such a thing as international law. This type of mind, however, does not appear to have been represented in the Congress, and it is authoritatively stated in this article by accredited representatives of the Governments of the American Republics that international law does in fact exist and that it should regulate their mutual intercourse; and in the passage previously quoted from the *Paquete Habana*, on page 103 the Supreme Court of the United States solemnly declared international law to be a part of the law of the United States and that it should be applied in the decision of cases properly involving it. The judges of this august tribunal are not ordinarily regarded as idealists but as men of affairs and leaders of the bar who have achieved distinction in their chosen profession.

For the Western Continent the law of nations therefore exists. As democracy comes to its own, the knowledge of international law becomes

more essential. The participation of the American Republics in The Hague Conference is assured, and to render their influence effective their delegates must be versed in the principles of international law. The future leaders of opinion, here or elsewhere, should have opportunities in their university days of perfecting themselves in the knowledge of international law and of international relations which are based upon the law of Nations, and international law should not be lowered in the opinion of the student by being placed upon a lower plane than any other branches of law or of political science. Professorships of international law should exist in every institution of higher learning in the American Continent, and departments thereof should, in the opinion of the Congress, be created in every such institution.

ARTICLE 28. The Second Pan American Scientific Congress, recognizing the growing importance of a knowledge of international law to all persons who intend to devote themselves to the administration of justice, and who, through their professional occupation, may contribute largely to the formation of public opinion and who may often be vested with the highest offices in the state and nation, earnestly requests all law schools which now offer no instruction in international law to add to their curriculum a thorough course in that subject.

Article 28 specifically considers the advisability of offering courses on international law in the law schools of the American countries and the necessity of having lawyers thoroughly grounded in the principles of international law. Given the fact that lawyers are members of the congresses of the different American countries, that they are very often members of the cabinets and presidents of the American Republics; that in their various public offices they are called upon to interpret the principles of international law, and in many instances to apply them as interpreted to the foreign relations of their country, it needs no argument that persons entering Congress and the higher service of the governments require a knowledge of international law to enable them to perform successfully or even acceptably the duties of their offices. All members of the diplomatic service must needs be trained in international law and in a lesser, but nevertheless to a marked degree, journalists, whose business it is to guide and to mold public opinion, should be trained in the law of nations.

As the result of an elaborate investigation it has been ascertained that international law is not taught universally in law schools, and indeed that it is omitted from the courses of many of them. The Congress

therefore supplements its general recommendations as to the value and advisability of an adequate knowledge of international law by earnestly recommending that courses of international law be offered in law schools, which at present do not have thorough courses in that subject.

ARTICLE 29. The Second Pan American Scientific Congress regards it as highly desirable, upon the initiative of institutions where instruction in international law is lacking, to take steps toward providing such instruction by visiting professors or lecturers, this instruction to be given in courses, and not in single lectures, upon substantive principles, not upon popular questions of momentary interest, and in a scientific spirit, not in the interest of any propaganda.

It is of course one thing to know the defect and another to provide the adequate remedy. In previous recommendations the Congress has urged that international law be taught in the universities of the Americas, and more especially in the law schools thereof, that international law be placed upon a plane of equality with other branches of law and of political science and that special departments be created for its teaching and study.

But it may be difficult or embarrassing to provide courses of instruction in the way previously recommended. Therefore the Congress, looking through the form to the substance, recommended it as particularly desirable that instruction should be given in international law by visiting professors or lecturers, when for one reason or another it should be found inconvenient or impossible to establish professorships and departments of international law. The Congress, however, recognizes the fact, patent to all persons interested in education, that single lectures on isolated subjects upon matters of momentary interest are not calculated to impart a knowledge of or to create an interest in the law of nations. Therefore, the Congress urges that courses of lectures, instead of single lectures, be given and that these courses be devoted to the exposition of substantive principles of international law, not to the elucidation, however interesting, of popular questions of passing interest. Above and beyond all, the Congress urges that the courses of instruction be permeated with the scientific spirit and not conceived in the interest of any propaganda, which, it is feared, would be detrimental to a scientific method and would fail of its purpose to incline the minds and the hearts of the students to the propaganda even if it were attempted so to do.

ARTICLE 30. The Second Pan American Scientific Congress recommends the establishment and encouragement in institutions of specialized courses in preparation for the diplomatic and consular services.

The need of international law for the diplomatic service has already been mentioned, although briefly and in passing, but the Congress felt that this subject was one of such grave importance that it should not be passed over in silence. Therefore, Article 30 deals with preparation for the diplomatic and consular services, and urges the establishment and encouragement of specialized courses to render the services more valuable, both to those who make of them a career and to the countries to which they belong.

The place which international law occupies in the outfit of a diplomat and in the daily duties of a consul is evident upon the merest consideration of their functions, so evident indeed as not to require special mention. And yet, in view of the fact that international law is largely a thing of usage and custom, that diplomatic incidents have entered into and form such a large part of the system, and that the question of peace and of war has so often depended upon the mastery of international law by diplomats and minister of foreign affairs, it seems necessary to enlarge upon the importance of the subject, even although it be unnecessary to enter into details. And what has been said of the diplomatic applies in no less a degree to the consular service; for as the diplomatist deals largely with what may be called political questions pending between the different countries, the consul handles the great commercial questions which so intimately concern the prosperity of nations.

The Congress did not feel justified in recommending that training in international law should be a prerequisite to admission to the diplomatic and consular services, because this is a political question and one which each country must necessarily determine for itself. In recommending, however, specialized courses in preparation for the services in question, it expressed in no uncertain terms the advisability of a thorough knowledge of international law for any and all persons in the Americas who might think of making of the diplomatic or consular service a career.

ARTICLE 31. The Second Pan American Scientific Congress advises that the study of international law be required in specialized courses in preparation for business.

Perhaps the Congress stated most unequivocally its appreciation and conviction of the advantages of a training in international law in the

present paragraph, which is the shortest of the articles dealing with this topic, and which, looking away from the special uses which might be made of international law, declares that "the study of international law be required in specialized courses in preparation for business."

ARTICLE 32. The Second Pan American Scientific Congress urges that in the study and teaching of international law in American institutions of learning special stress be laid upon problems affecting the American Republics and upon doctrines of American origin.

Heretofore the desirability of a training in international law has been stated in general and with reference to particular callings in terms applicable alike to Europe and Asia as well as the Americas, but in Article 32 the Congress recognizes, without attempting to enter into detail or to specify them, that there are problems affecting the American republics which do not of necessity affect other countries, or which do not affect them in the same way or to the same extent. At the same time it recognizes, without stating or defining them, that there are what may be called doctrines of American origin.

Regarding these problems and these doctrines the Congress makes a very simple, a very specific and a very wise recommendation, namely, that, by reason of the effect which these problems have upon American countries and by reason of the American origin of certain doctrines, special stress should be laid upon them in all courses of international law offered in American institutions.

The recommendation of the Congress accords with the views of American publicists as expressed in the Constitution of the American Institute of International Law, which is the object of the next article, and in the constitutions of the societies of international law which happily exist in every American Republic. A single example will suffice. Thus, Article 2 of the Constitution of the American Institute of International Law states the purpose of this body to be "to study questions of international law, particularly questions of an American character, by endeavoring to decide them either in conformity with generally accepted principles, or by enlarging and developing these principles, or by creating them in conformity with the special conditions obtaining in the American continent."

This article has the advantage of stating the point of approach to American problems and questions and proposes a method of solving them.

ARTICLE 33. The Second Pan American Scientific Congress extends to the American Institute of International Law a cordial welcome into the circles of scientific organizations of Pan America, and records a sincere wish for its successful career and the achievement of the highest aims of its important labors.

The welcome extended by the Congress to the American Institute of International Law was the culmination of a remarkable series of resolutions adopted by legal, political, and scientific assemblies officially representing all of the American Republics, because, as will be seen, the Pan American Union tendered a vote of commendation and encouragement shortly before the meeting of the Congress to the founders and members of the Institute, and the Commission of American Jurists, assembled at Rio de Janeiro to consider the codification of international law, adopted on July 16, 1912, a resolution "commending the initiative taken to found an American Institute of International Law, as the committee considers an institution of this kind of great usefulness to assist in the work of codification that the statesmen of the New World have in view."

It is difficult to explain the origin and development of the American Institute of International Law in briefer and more apt terms than those employed by His Excellency Sr. EDUARDO SUÁREZ MUJICA, the Chilean Ambassador, President of the Congress, who, at the meeting of the Governing Board of the Pan American Union, held on December 1, 1915, moved a resolution of encouragement to the founders of the Institute, and who, in the remarks upon his motion, unanimously carried by the Governing Board, spoke as follows:

> As my colleagues are undoubtedly aware, in October, 1912, the foundations were laid in Washington for an organization of a most interesting character. Under the auspices of the prominent internationalists of the whole world, under the honorary presidency and the wise counsel of the ex-Secretary of State and distinguished North American statesman Mr. ELIHU ROOT, and through the unremitting and intelligent effort of two men of action and scholars, well known to the international world, Messrs. JAMES BROWN SCOTT and ALEJANDRO ÁLVAREZ, there was born into the realm of scientific life the American Institute of International Law, the object of which is, briefly stated, to combine and utilize, through a central organization in Washington and the coöperation of affiliated or corresponding associations in all the other American nations, the intellectual efforts of jurists and thinkers of the continent, for the development of international law, the generalization of its principles, and the adoption of a common standard to insure the enforcement of law and justice among the countries of the New World.

The corresponding or affiliated associations have already been organized in eighteen out of the twenty-one American Republics, and steps are being taken to constitute the other three.

International law is not the patrimony of a single nation. It is the law of all nations, and must therefore be formed and assented to by all; and thus the coöperation of nations is essential to its enactment or amendment. Hence the enormous importance of an organization having a brain and a voice in every one of the nations of America, whose action must be the fruit of continental thought.

Such an organization embodies, I believe, one of the most powerful auxiliaries for progress and civilization in the Americas, and for the permanent maintenance of peace from one end to the other of their frontiers. Such an organization deserves, without doubt, the good will of the peoples and Governments of the continent, which we represent here.

During the month commencing to-day the Second Pan American Scientific Congress is to meet in Washington, and one of the most important events that are to take place during its sessions is the official, solemn inauguration, under the auspices of the Congress, of the American Institute of International Law. I believe this is a fitting occasion on which to offer a vote of commendation and encouragement for this work of common interest to our countries—a vote which I hope will be accepted by all—and therefore I have the honor to submit for the approval of the board the following resolution:

The Governing Board of the Pan American Union, considering that the official inauguration of the American Institute of International Law, founded in Washington October 12, 1912, is soon to take place under the auspices of the Second Pan American Scientific Congress; and

Considering that said Institute, consisting of representatives of every one of the American Republics, recommended by the International Law Associations of their respective countries, will result in strengthening, through the active coöperation of jurists and thinkers of the whole continent, the bonds of friendship and union now existing between these republics, and will contribute to the development of a common sentiment of international justice among them, the Governing Board of the Pan American Union

Resolves, To tender to the founders and members of the American Institute of International Law a vote of commendation and encouragement for the foundation of said organization, which represents a step of the highest importance in the moral advancement of the continent and in the strengthening of the sentiments of friendship and harmony among the Republics.

Since the date of His Excellency's address and motion, which was warmly seconded by the Honorable ROBERT LANSING, Secretary of State of the United States, and unanimously carried, societies of international law have been formed in the three American Republics where they were then lacking, so that on the opening of the Congress a national society of international law existed in the capital of every American State. The Institute is composed of five members from

each of the twenty-one national societies, recommended by the societies for membership in the Institute.

It is proper to say, before leaving this subject, that His Excellency the President of the Congress, is himself a member of the Institute and that the members from the United States are: the Honorable ROBERT BACON, formerly Secretary of State of the United States and Ambassador to France; the Honorable ROBERT LANSING, Secretary of State of the United States; the Honorable ELIHU ROOT, formerly Secretary of State of the United States and always a friend of the Americas; Dr. LEO S. ROWE, Professor of Political Science in the University of Pennsylvania and personally known and appreciated in Latin America through his repeated visits to all the American countries; and JAMES BROWN SCOTT, Esq., Secretary of the Carnegie Endowment for International Peace and Chairman of the Joint State and Navy Neutrality Board of the United States.

It is proper also to add, in this connection, that the American Institute met in connection with and under the auspices of the Congress, that it was formally opened on December 29, 1915, and welcomed by the Honorable ROBERT LANSING, on behalf of the Government of the United States, by His Excellency, the Chilean Ambassador, on behalf of the Congress, of which he was President, and by the Honorable ELIHU ROOT, on behalf of American publicists. It completed its organization by admitting the five members from each national society and selected the following officers: Honorary President, ELIHU ROOT; President, JAMES BROWN SCOTT; Secretary General, ALEJANDRO ÁLVAREZ; Treasurer, LUIS ANDERSON.

On the 3d of January, 1916, the Honorable ROBERT LANSING, Secretary of State of the United States, addressed a letter to the President of the Institute, requesting it to consider the matter of neutrality, from which very important letter the following passage is quoted:

> I would, therefore, suggest that a committee be appointed to study the problem of neutral rights and neutral duties seeking to formulate in terms the principle underlying the relations of belligerency to neutrality rather than the express rules governing the conduct of a nation at war to a nation at peace.
>
> I would further suggest that the subject might be advantageously divided into two parts, namely, the rights of neutrals on the high seas, and the duties of neutrals dependent upon territorial jurisdiction.
>
> In view of the past year and half of war the present time seems particularly opportune to study this question and this Institute being composed of members from neutral nations is especially fitted to do this from the proper point of view and with the definite purpose of protecting the liberty of neutrals from unjustifiable restrictions on the high seas and from the imposition of needless burdens in preserving their neutrality on land.

Three days later the Institute adopted a Declaration of the Rights and Duties of Nations, based upon the political philosophy of the Declaration of Independence of the United States, and the practice of the American Republics. Inasmuch as the Institute was formally welcomed by the President of the Congress, held its sessions in connection with and under the auspices of the Congress, and that the members of the Institute were likewise delegates to the Congress and participated in its labors, it is advisable to include the text of the Declaration accompanied by a résumé of the elaborate commentary which explains it. The text of the Declaration therefore follows:

Whereas, the municipal law of civilized nations recognizes and protects the right to life, the right to liberty, the right to the pursuit of happiness, as added by the Declaration of Independence of the United States of America, the right to legal equality, the right to property, and the right to the enjoyment of the aforesaid rights; and

Whereas, these fundamental rights, thus universally recognized, create a duty on the part of the peoples of all nations to observe them; and

Whereas, according to the political philosophy of the Declaration of Independence of the United States, and the universal practice of the American Republics, nations or governments are regarded as created by the people, deriving their just powers from the consent of the governed, and are instituted among men to promote their safety and happiness and to secure to the people the enjoyment of their fundamental rights; and

Whereas, the rights and duties of nations are, by virtue of membership in the society of nations, exercised and performed conformably to the requirements of the solidarity uniting the members of the society of civilized nations, recognized by the First Hague Peace Conference in 1899, and reaffirmed by the second Hague Peace Conference in 1907; and

Whereas, the Nation is a moral or juristic person, the creature of law, and subordinated to law as is the natural person in political society; and

Whereas, we deem that these fundamental rights can be stated in terms of international law and applied to the relations of the members of the society of nations, one with another, just as they have been applied in the relations of the citizens or subjects of the states forming the Society of Nations; and

Whereas, these fundamental rights of national jurisprudence, namely, the right to life, the right to liberty, the right to the pursuit of happiness, the right to equality before the law, the right to property, and the right to the observance thereof are, when stated in terms of international law, the right of the nation to exist and to protect and to conserve its existence; the right of independence and the freedom to develop itself without interference or control from other nations; the right of equality in law and before law; the right to territory within defined boundaries and to exclusive jurisdiction therein; and the right to the observance of these fundamental rights; and

Whereas, the rights and duties of nations are, by virtue of membership in the society thereof, to be exercised and performed in accordance with the exigincies of their mutual interdependence expressed in the preamble of the Convention for the pacific settlement of international disputes of the First and Second Hague Peace Conferences, recognizing the solidarity which unites the members of the society of civilized nations;

Therefore, The American Institute of International Law, at its first session, held in the City of Washington, in the United States of America, on the sixth day of January, 1916, adopts the following six articles, together with the commentary thereon, to be known as its Declaration of the Rights and Duties of Nations.

I. Every nation has the right to exist and to protect and to conserve its existence; but this right neither implies the right nor justifies the act of the state to protect itself or to conserve its existence by the commission of unlawful acts against innocent and unoffending states.

II. Every nation has the right to independence in the sense that it has a right to the pursuit of happiness and is free to develop itself without interference or control from other states, provided that in so doing it does not interfere with or violate the rights of other states.

III. Every nation is in law and before law the equal of every other nation belonging to the society of nations, and all nations have the right to claim and, according to the Declaration of Independence of the United States, "to assume, among the powers of the earth, the separate and equal station to which the laws of nature and of nature's God entitle them."

IV. Every nation has the right to territory within defined boundaries, and to exercise exclusive jurisdiction over its territory, and all persons whether native or foreign found therein.

V. Every nation entitled to a right by the law of nations is entitled to have that right respected and protected by all other nations, for right and duty are correlative, and the right of one is the duty of all to observe.

VI. International law is at one and the same time both national and international; national in the sense that it is the law of the land and applicable as such to the decision of all questions involving its principles; international in the sense that it is the law of the society of nations and applicable as such to all questions between and among the members of the society of nations involving its principles.

I. Every nation has the right to exist and to protect and to conserve its existence; but this right neither implies the right nor justifies the act of the state to protect itself or to conserve its existence by the commission of unlawful acts against innocent and unoffending states.

The official commentary states that this right and duty is to be understood as interpreted (*a*) by the Chinese Exclusion Case (reported in 130 United States Reports, pp. 581, 606), decided by the Supreme Court of the United States in 1888, holding that to preserve its independence and give security against foreign aggression and encroachment is the highest duty of every nation, and to attain these ends *nearly* all other considerations are to be subordinated; (*b*) by the case of Regina v. Dudley (reported in 15 Cox's Criminal Cases, p. 624; 14 Queen's Bench Division, p. 273), decided by the Queen's Bench Division of the High Court of Justice in 1884, to the effect that it was unlawful for shipwrecked sailors to take the life of one of their number, in order to preserve their own lives, because it was unlawful according to the common law of England for an English subject to take human life, unless to defend himself against an unlawful attack of the assailant threatening the life of the party unlawfully attacked; (*c*) by BELLO in his *Principios de Derecho de Jentes*, pt. 1, ch. 1, sec. 7, edition of 1832, and by CALVO in his *Droit International Théorique et Pratique*, 5th ed., Vol. I, sec. 208.

II. Every Nation has the right to independence in the sense that it has a right to the pursuit of happiness and is free to develop itself without interference or control from other states, provided that in so doing it does not interfere with or violate the rights of other states.

III. Every nation is in law and before law the equal of every other nation belonging to the society of nations, and all nations have the right to claim and, according to the Declaration of Independence of the United States, "to assume, among the powers of the earth, the separate and equal station to which the laws of nature and of nature's God entitle them."

The rights and duties of independence and of equality stated in Articles 2 and 3 are, according to the official commentary, to be understood as interpreted—

(*a*) By Sir WILLIAM SCOTT in the case of *The Louis* (reported in 2 Dodson's Reports, pp. 210, 243–244), decided in 1817, in which he said: "Two principles of public law are generally recognized as fundamental. One is the perfect equality and entire independence of all distinct states."

(*b*) By Chief Justice MARSHALL in the case of *The Antelope* (reported in 10 Wheaton's Reports, pp. 66, 122), decided by the Supreme Court of the United States in 1825, who said: "No principle of general law is more universally acknowledged than the perfect equality of nations. Russia and Geneva have equal rights. It results from this equality that no one can rightfully impose a rule on another. Each legislates for itself, but its legislation can operate on itself alone."

(*c*) By the Honorable ELIHU ROOT, in his address before the Third Pan American Conference held at Rio Janeiro on July 31, 1906.

(*d*) By BELLO in his *Principios de Derecho de Jentes*, pt. 1, ch. 1, sec. 7, and

(*e*) By CALVO in his *Droit International Theorique et Pratique*, 5th ed., vol. 1, sec. 208.

IV. Every Nation has the right to territory within defined boundaries, and to exercise exclusive jurisdiction over its territory, and all persons whether native or foreign found therein.

This right and duty are, according to the official commentary, to be understood in the sense in which they were interpreted by Chief Justice MARSHALL in the case of the schooner *Exchange* (reported in 7 Cranch's Reports, pp. 116, 136–137), decided by the Supreme Court of the United States in 1812, who said:

> The jurisdiction of the nation, within its own territory, is necessarily exclusive and absolute; it is susceptible of no limitation, not imposed by itself. * * *
>
> A nation would justly be considered as violating its faith, although that faith might not be expressly plighted, which should suddenly and without previous notice exercise its territorial powers in a manner not consonant to the usages and received obligations of the civilized world.

V. Every nation entitled to a right by the law of nations is entitled to have that right respected and protected by all other nations, for right and duty are correlative, and the right of one is the duty of all to observe.

This right is to be understood in the sense in which it was stated and defined by Chief Justice WAITE in the case of United States *v.* Arjona (reported in 120 United States Reports, pp. 479, 487), decided by the Supreme Court of the United States in 1886, who said:

> But if the United States can require this of another, that other may require it of them, because international obligations are of necessity reciprocal in their nature. The right, if it exists at all, is given by the law of nations, and what is law for one is, under the same circumstances, law for the other. A right secured by the law of nations to a nation, or its people, is one the United States as the representatives of this nation are bound to protect.

VI. International law is at one and the same time both national and international; national in the sense that it is the law of the land and applicable as such to the decision of all questions involving its principles; international in the sense that it is the law of the society of nations and applicable as such to all questions between and among the members of the society of nations involving its principles.

The relation of international to national law is to be understood (1) in the sense in which the relationship is stated by Mr. Justice GRAY in the case of *The Paquete Habana*, quoted on page 103, under Article 25 of this report; and (2) in the sense of the official commentary, according to which international law is to be regarded as a part of the law of the American countries and is to be applied as national law by their courts, and to be also applied by the respective Republics in their relations one with another.

The spirit which should animate the American Republics is, according to the official commentary, the following statement by DANIEL WEBSTER, written as Secretary of State:

> Every nation, on being received, at her own request, into the circle of civilized governments must understand that she not only attains rights of sovereignty and the dignity of national character, but that she binds herself to the strict and faithful observance of all those principles, laws, and usages which have obtained currency among civilized states, and which have for their object the mitigation of the miseries of war.

Before adjournment on the 8th day of January, 1916, the Institute was invited to hold its next session in Havana as the guest of the Cuban Government, an invitation calculated to encourage its members to be worthy of the invitation which was so graciously and so unexpectedly tendered it.

ARTICLE 34. The Second Pan American Scientific Congress recommends to all educational establishments of America the special study of the constitutions, laws, and institutions of the Republics of this continent.

It is difficult to comment upon the simple recommendation of the Congress that the constitutions, laws, and institutions of the Republics of this continent be made the subject of special study in all educational establishments of America. The importance of it is evident and, in the happy expression of a distinguished English judge, it can only be obscured by argument. And yet the advantages that would accrue from a knowledge of the constitutions, laws, and institutions of the Republics of this continent are so manifold that it would seem to be a sign of indifference if they were not dwelt upon.

The Western World was an accidental discovery and the continent has been, without exception, the land of experiments. Starting without the traditions of the Old World, it has been the laboratory of modern political thought. The experiment of republican, that is to say democratic, government has been tried in the Western Hemisphere upon a larger and broader scale than ever before in the world's history, and the experience had with democratic government has been such as to endear it to the hearts and to commend it to the intelligence, not merely of Americans as such but to the enlightened throughout the world. The specific advantage that would accrue to American peoples by the study of their respective constitutions and of their laws and of their institutions is that each would be able to profit by the experiments, and by the departures in political life and thought of each of the countries, and by appropriating the innovations which have proved successful and by modifying them to meet special conditions they would be able to add to their own happiness and to increase the heritage of their offspring.

ARTICLE 35. The Second Pan American Scientific Congress recommends to the various universities of the American Republics that a comparative study of judicial institutions be undertaken in order—

(*a*) To create special interest therein in the several countries of the continent;

(*b*) To facilitate the knowledge and solution of problems of private international law in the American countries; and

(*c*) To bring about as far as possible uniformity in jurisprudence and legislation.

Articles 23–33 dealt with international law. Article 34 forsook international law and urged the desirability of a knowledge and study of the constitutions, laws and institutions of the Western World. Article 35, without returning to international law, nevertheless narrows the field of its recommendation and commends the study not merely of institutions as such and of all institutions of the American countries but the comparative study of judicial institutions, in the hope if not in the belief that such a comparative study would create special interest therein in the several countries of the continent and redound to the benefits of each one thereof. A question of very great importance and of equal difficulty is that of the conflict of laws, very frequently called private international law. The great difficulty in this subject is that countries deriving their systems of law from England have adopted the principle of domicile, whereas the countries drawing their inspiration and their systems of law from the civil law of Rome are inclined

to the principle of nationality. The conflict between the two is evident and as it is one of principle it is difficult of compromise. Nevertheless, the Congress recommends the solution of problems of this nature, and ventures a step further in the field of jurisprudence by recommending as far as possible uniformity in legislation as well as in jurisprudence. Whether it would be possible to reach a working compromise in the domain of international private law, and whether it would be possible to secure in any considerable degree uniformity of legislation and of jurisprudence in the various countries, it can not be gainsaid that it is the goal that we of the Americas should have before our eyes. If it be solved the triumph is greater, because of the difficulties, and perhaps a very desire to solve the problems may, with good will, much patience and infinite tact overcome many if not all of the obstacles which stand in the way of the realization of this counsel of perfection which the Congress recommends.

ARTICLE 36. The Second Pan American Scientific Congress, in order to broaden the outlook and to bring into closer contact the members of the legal profession, urges that the bar association exchange among themselves:

(*a*) Law books and publications affecting the legal profession and the practice of law.

(*b*) New codes of law and rules of procedure as they are hereafter published.

It was natural that the recommendations in Section VI dealing with international law, public law and jurisprudence should cover a very broad field, and that some of them, going beyond the subject-matter, should not merely refer to subjects of international law, of public law, or of jurisprudence, but should suggest that the persons following these various callings regard themselves as bound by the ties of their profession and that, if they were unable to meet personally, there should nevertheless be an exchange of ideas, of ideals, and of the things of the spirit. Therefore, in order to raise the standard, if possible, of the legal profession in all parts of the Americas, the Congress urged that the bar associations made up of the votaries of law should exchange among themselves law books and publications affecting the legal profession and the practice of law; for it was recognized that, without this, they would stand as it were in isolation but that with this exchange there would be developed, little by little, a common knowledge, a common standard, a broader outlook, and a feeling of mutual dependence and respect. This recommendation, seemingly broad, is in reality narrower than that contained in the final paragraphs of the article, because in

the one lawyers as such are affected, whereas in the other not only lawyers but men of affairs are included, because it is of advantage to men engaged in business extending beyond the confines of their country to have the codes of law in their hands and to be familiar with the rules of procedure, lest through ignorance and neglect their feet become entangled in the meshes of foreign law. Of course neither codes nor rules of procedure can dispense with the lawyer, for we must needs have a professional class devoting itself to the interpretation and the application of laws; and yet the codes and rules of procedure would often prevent the commission of a mistake and their very presence and their very difficulty would urge the taking of advice of the profession before it is too late.

The recommendations of Section VI as a whole aim to make international law a thing of flesh and blood, a living organism, as necessary to nations in their mutual intercourse as is national law to individuals in political society; to impart to the peoples of the Americas a knowledge of the constitutions, laws and institutions of the Republics of our beloved continent; to strive for uniformity both in the framing and in the interpretation of laws, in so far as this may be possible, and by broadening the legal profession and bringing its members into correspondence, if not into actual personal touch, to create a community of ideals, to raise the standard of the profession in all the Americas and to make it worthy of the trust and confidence which it has enjoyed and without which its members can not render effective service.

ARTICLE 37. The Second Pan American Scientific Congress recommends that—

(*a*) A compilation be made, according to a definite plan, of the mining laws of the American Republics, not only in their original languages but also in Spanish, Portuguese, French, and English translations, as the case may be, with a view to the reciprocal improvement of the laws of each of the American Republics;

(*b*) The several American Governments appoint a committee to consider the uniformity of mining statistics and to make recommendations to their respective Governments in order to systematize, simplify, and standardize such statistics.

This article was recommended by Section VII of the Congress, dealing with mining, metallurgy, economic geology, and applied chemistry, and, in view of the very great importance to the American countries of the subjects discussed in the Section, although not made the basis of recommendations, it seems advisable to consider briefly and to state in outline the nature of the problems discussed by the Section. For this reason a

few sentences are quoted by way of introduction from the opening remarks of the Chairman of the Section:

> Mining and agriculture are the only basic productive pursuits of man, and they are both fostered each by the other, and both dependent on Mother Earth. The one skims her surface; the other goes deeper. Agriculture furnishes man with food for existence, but mining gives him the materials for power, art, and civilization. Without metals the scientists' tools for experimentation and determination would not be possible, nor the great diffusion of knowledge and thought by means of the printing press, photographic appliances, telegraph, cable, and the telephone. * * *
>
> Mining and metallurgy must go hand in hand, for each would be impossible or impotent without the other. Economic geology and applied chemistry are the necessary lights, guides, and inspirations to advance the power and usefulness of the miner and metallurgist. * * *
>
> With the steam engine, the turbine, and dynamo there was placed in man's hands the fundamental implements of manufacture and the flexible distribution of force. The main restraining bonds that confine and make effective the steam are iron and metal; those of the turbine and dynamo, iron, steel, copper, and aluminum; while coal, petroleum, gas, and water are the mighty driving forces. And gold must not be forgotten. It made all possible through its stored cells of human energy that radiated genial currents of trade confidence which inspired and gave courage to gigantic undertakings.
>
> In the manufacture of force the miner, scientist, engineer, and mechanic all had to do teamwork and each aid the other, the miner giving to all others the necessary materials. In return, knowledge and skill were given mining projects that multiplied and expanded their outputs. And so the forces have traveled in cycles—the miner giving to the engineer, the engineer giving to the miner, and in such wonderful and startling way that the gold, coal, iron, copper, and petroleum demanded in the manufacture of force and other needs of modern civilization have so progressively increased within the last half century that the past fifteen years' output of these fundamental force producers and force restrainers have probably, with the exception of gold, more than equaled the total output of all previous time in the history of the world. With these outputs bank deposits, railroad construction, war armaments, steam vessels, and other forms of wealth and power have sympathetically advanced.
>
> Contemplate, then calculate, what is the force that has been unlocked by the mining of 535,000,000 tons of coal and 222,000,000 barrels of petroleum produced in 1912 in the United States. This force, if all used for steam and expressed even in the imperfect efficiency of the steam engine, would still show, in terms of man's muscular capacity, an equivalent of the work of 2,700,000,000 strong men working continuously for ten hours a day throughout the entire year.
>
> Falling water has also been harnessed and made use of by the copper band windings of the dynamo, and generates still other great forces. The chemist's great might, expressed through explosives, has also been given man within comparatively few years, and is being progressively increased. Thus, in so short a time, has the miner, metallurgist, scientist, and engi-

> neer unlocked and tapped great force-fountains that the world has not had time to digest properly its uses or control the haste, greed, and waste that has been brought in its train.

Coming to the work of the Section, it is to be noted in the first place that the subsection on mining and metallurgy considered only those mining problems of direct importance to the development of the mineral wealth and to the promotion of commerce between the American Republics. The aims and purposes of this Section, as stated in the preliminary program, were:

> (1) The assembling of laws governing titles to mineral lands or mineral rights, or specifically applying to the operations of mines, quarries, oil wells, and plants for treating minerals; (2) the discussion of the methods of mining and treating ores and minerals of possible commercial importance, with a view to the devising of methods of greater economy and efficiency or increased safety—chemical processes to be considered by the conference on applied chemistry at joint sessions; (3) showing the items of cost, including mining, treatment, and transportation, that determine the price at which a raw material or mineral product can be profitably sold at a shipping port or point of export, and the possible means by which costs of production can be lessened and the development of mineral resources thereby increased; (4) the development of increased efficiency in the purchase of minerals and mineral products, through the use of uniform tests and specifications, and the promotion of economy and efficiency in the utilization of mineral products through the use of improved methods and apparatus, it being recognized that this purpose will also be within the province of the conferences on applied chemistry and of mechanical engineering.

The program of the subsection, as actually carried out, has already been given in the preamble to the Final Act, and the topics treated, the papers presented, and the specialists who took part, are shown in the detailed program appended to the Final Act, from an inspection of which an idea can be had of the value and of the importance to the Americas of the proceedings in this subsection of the Congress.

In the subsection on economic geology and mineral resources of the American Republics, the contributions and discussions were largely regional rather than local in interest. They describe in detail the area, distribution, and mode of occurrences of deposits of iron, coal, petroleum, potash and niter, gold, silver, tin, vanadium, sulphur, lead, etc.

The underlying thought of this subsection and the method devised to make its deliberations of value to the Americas are thus stated in the Preliminary Program:

> Contributions on Economic Geology and Mineral Resources should be regional rather than local in interest; should describe and map the distribution, area, and mode of occurrence (economic geology) of the particular kinds of deposits, such as iron, coal, petroleum, copper, potash, and

> niter, gold, silver, tin, vanadium, sulphur, lead, etc.; their qualities, characters, and adaptations; the quantities in each area, so far as they may at present be estimated; the state of development in and the accessibility of each area and the present capacity of production of each kind of mineral resources that may be contributed to international trade.
>
> It will be opportune that each participating country shall present for the information of its sister republics and of the world an exposition, through reports and maps, of the mineral resources and products which it has to offer the world in trade, and to invite attention to its important undeveloped mineral deposits, the exploitation of which would increase the prosperity of the country, while contributing to Pan American commerce. It is designed that the section of economic geology and mineral resources shall have for its principal aim the presentation of reports, with maps, covering the important mineral resources, both developed and undeveloped, of each Republic. It is hoped that these reports, when combined, will constitute in effect a census of the important mineral resources that have been discovered in each country.

The topics in the subsection of applied chemistry were largely of international importance, and related to fertilizers, petroleum refining, explosives, dyestuffs, and tanning, leather, and other industries, including those of manufacture of acids, bases and salts, usually styled chemicals.

As stated in the Preliminary Program:

> Applied Chemistry has for its purpose the isolation and purification of chemical substances found in nature or else the rearrangement of such substances through their interactions so as to produce new chemical substances of benefit to man. In dealing with this subject broadly it is essential to know the sources of supply of raw material and the extent of each, the kind and extent of the energy to be used in effecting these chemical changes, and how largely these resources are availed of in the several countries sending delegates to this Congress.

Notwithstanding the importance of all the subjects included in the program of this Section and assigned to the several subsections for appropriate treatment, some topics, by reason of their prominence at the present time, and of the especial appeal that they make to different countries or regions thereof, were more elaborately discussed than others, and it is believed to be of more than passing interest to mention some of these as tending to show the topics which appealed to the delegates present and participating in the proceedings of the section. The nitrate industry of Chile and its relation to the chemical industries of the Americas was considered. The genesis of the Chilean nitrate deposits was also the basis of an important discussion. The possibility of utilizing the nitrate deposits of the United States and the fixation of atmospheric nitrogen were also set forth.

The uniformity of the methods of chemical analyses and standard methods for analyzing coal and coke were also considered in open session.

The value of such uniform standards was brought out with reference to commercial requirements in buying and selling ores, minerals, and chemicals. The discussions of mining in the various American countries showed the need of the unification of the laws relating thereto as far as practicable, with special reference to the importance of securing statistics of the mineral industry. The lack of uniformity of mineral statistics makes it impossible to bring together, for comparative purposes, the figures of production of different countries, as well as figures relating to labor and accidents in mines.

Another important topic considered at length was the conservation of petroleum and of the gas resources of the Americas, together with methods to be devised by means of which better and more economic extraction and utilization could be made. With reference to petroleum, it was brought out by the discussion that the production of gasoline from petroleum, which is now from 25 to 30 per cent, could be increased to approximately 50, or possibly 60, per cent.

The conservation of iron and copper ores of the United States was also discussed, with special reference to improved methods of mining and practices in metallurgy as an aid in conserving the resources of the country. It was shown that under the present methods of mining and metallurgy much ore, considered absolutely worthless ten years ago, now pays handsome dividends.

The public interest in mineral resources and the cost of geological surveys were also treated in various papers on the topics relating to economic geology.

The question of dyestuffs and of tanning materials coming from Latin American countries was also presented and discussed, as became its importance, as indicated in the list of topics under applied chemistry.

Passing now to the recommendations of the Congress dealing with the Section on mining, metallurgy, economic geology, and chemistry, it will be observed that, although they are important, they nevertheless give no adequate idea of the value and far-reaching nature of the papers and discussions of the Section.

The study of mining laws was one of the important topics suggested as a Pan American subject to be discussed during the Congress, as the mining industry is of prime necessity to the majority of the American countries. Because of the lack of uniformity in their mining laws, the Section adopted a resolution forming the first paragraph of Article 37. and which, if carried into effect, will undoubtedly be of great service. Neither the Section nor the Congress ventured to suggest the plan to be followed, as this must be the result of careful thought and reflection and of comparison with different methods of training in the different coun-

tries, but the necessity of a compilation according to a definite plan was recognized, and, in view of the importance of the subject, the compilation according to this definite plan was not only to be published in any one language, but in the languages spoken in the American Continent, namely, Spanish, Portuguese, French, and English.

The purpose of this recommendation was far from academic, although the compilation according to a definite plan and the publication in the different languages might be considered as an end in itself and justify the time and labor involved. The Congress, however, felt that the compilation according to a definite plan to be adopted was a prerequisite to the proposals for an improvement of the laws of the different countries, because any reform of this kind, and indeed any reform, should be undertaken in the fullness of knowledge. Not the least valuable result of the recommendation is that the compilation according to a definite plan to be adopted, published in the different languages of the Americas, will give rise to the criticism and comment of those most interested and most competent to criticise, with the result that proposals will not be adopted, even if made, without regard to the experience of the different countries in fostering and regulating the mining industry.

In connection with the improvement of the mining laws of the Americas, there are many features wherein they might be made more nearly uniform, especially in the matter of reporting the statistics of mineral production, of labor, and of accidents.

Furthermore, uniform laws on these subjects would render the mining and metallurgical reports of the various countries comparable one with the other, which is highly desirable for the consideration of data drawn from so many and so varied sources. And in this connection it is well to point out, in further justification of the recommendation, the large amount of duplication in statistical work and the lack of uniformity in the data collected to be compiled, as well as in the method of presentation, making it necessary, for the purpose of comparative study, that a higher degree of uniformity of statistical methods be secured, that the duplication of work on the part of statisticians and producers be minimized, and that the suggestion of uniformity be extended to cover all statistical work relating to the development of mining in North, Central, and South America.

For these reasons, which could be elaborated upon, the Congress decided to recommend that the different Governments appoint a committee to consider the question of the uniformity of mining statistics and as a result of its investigation to recommend to the respective Governments such measures as, in the opinion of the Committee, would tend to systematize, simplify, and standardize such statistics.

ARTICLE 38. The Second Pan American Scientific Congress suggests that—

It is desirable to establish institutions for the study of drugs and other economic plants at their place of origin.

It will be noted that the recommendation, if such it can properly be called, is very tentative and of a general nature, for the Congress does not recommend that institutions be established for the study of drugs and other economic plants at the place of their origin. It contents itself with mentioning the desirability of such institutions. The article in question seems to owe its origin to the fact that such laboratories have been established in other portions of the world with resultant benefits, and it seems fair to presume that they would render like benefits to commerce in the matter of food and drugs if established in the American Republics. Couched as it is in such general form, the article does not suggest a duty, but the expression that it is desirable will doubtless cause it to be considered, with the result that the experiment may be tried, and if successful it will undoubtedly lead to the establishment of similar institutions in the countries generally.

Before leaving the resolutions drafted by the Seventh Section, and which were approved by the Congress, and passing to the labors of Section VIII, dealing with Public Health and Medical Science, it is proper to mention that the Seventh Section also devoted attention to standard methods of sampling and testing, both chemical and physical, and came to the conclusion that on account of the lack of uniformity therein it was highly desirable to take steps to devise more uniform and standard methods and to secure their introduction in practice. The Section on Chemical and Physical Sciences of the First Pan American Scientific Congress adopted the following article as its Fifteenth Conclusion or resolution:

> The Fourth Scientific Congress (First Pan American) in order to give effect to the conclusions numbered 7, 8, 13, and 14, and eventually to any other conclusion of the Second Section (of Physical and Chemical Sciences), nominates the following committee: ARTURO E. SALAZAR, CARLOS MALSCH, FRANCISCO SERRATO, LUIS E. MOURGUES, PABLO MARTENS, BELISARIO DÍAZ OSSA, and JOSÉ DUCCI KALLENS.
>
> It shall be the duty of this committee to promote the appointment of similar ones in the other countries of America, having recourse for this end to the institutions and delegates represented in this Congress. It shall be its further duty to report to the proper section of the Congress at Washington in 1912,[1] where a committee shall be named to supplant it.

[1] This Congress convened Dec. 27, 1915.

Sections 7, 8, 13, and 14, mentioned in the conclusion or resolution just quoted, follow:

> 7. The Fourth Scientific Congress (First Pan American) recommends the use of an uniform chemical nomenclature, conformably to the Convention of Geneva (1892), and proposes the nomination of a Latin-American commission, whose duty it shall be to present at the next Congress a joint study of how to apply existing agreements most in harmony with the genius of the Castilian language.
>
> 8. The Fourth Scientific Congress (First Pan American) recommends to American Governments and learned societies the adoption of the conclusions reached by—
>
> (*a*) The six international congresses of applied chemistry, especially in respect to the methods of analysis.
>
> (*b*) The first international congress for the suppression of adulterations in foods and drugs, assembled in Geneva in 1908.
>
> 13. The Fourth Scientific Congress (First Pan American) recommends the formation of a Pan-American Society of Physics and Chemistry, intended to unify the work in each country and to present the results of investigation and at the same time the establishment of a bibliographic review, to serve as organ of the society.
>
> 14. The Fourth Scientific Congress (First Pan American) recommends to governments and institutions of learning, as a means of promoting the industrial and intellectual progress of American nations, the foundation of independent institutes and laboratories of physics and chemistry, pure and applied, in all departments, which shall be devoted to scientific study and investigation and to the teaching and application of the sciences named.

The Seventh Section therefore considered the matters contained in sections 7, 8, 13, and 14 above quoted, as well as the procedure outlined in Article 15, and to give effect thereto agreed upon the following resolution:

> 1. That, in order to carry out the injunction of the closing sentence of resolution 15, Section II, First Pan American Congress, a committee be constituted with the following functions:
>
> To promote in whatsoever way shall appear feasible and not in conflict with the provisions of any other resolution adopted by this Congress, the adoption of uniform or standard specifications as to composition or quality and of uniform or standard methods of sampling and testing (chemical and physical), particularly with respect to such materials or commodities as enter into commerce and whose composition or quality can be determined by tests of the kind named.
>
> 2. That the active nucleus of this committee shall consist of not more than five members, to be drawn (with the consent of those in authority) from the scientific Bureaus most concerned of the following governmental departments in Washington: Agriculture, Interior, and Commerce.
>
> 3. That each Republic of Latin America is entitled to a representation on this committee of one member, whose duty it shall be to further within his

own country the purposes and aims of the committee and to this end to work always in harmony with the active nucleus at Washington.

4. That, in order to give this committee added dignity and the largest measure of usefulness through increased facilities for procuring and disseminating information pertaining to its special field throughout the republics of America, the Pan American Union be asked to permit the committee to act under its auspices and with its active assistance.

5. That the committee, if constituted, be requested to report to the Third Pan American Scientific Congress upon its activities and to offer recommendations for the future.

6. That the name of this committee shall be Committee on Promotion of the Use of Standard Specifications and of Standard Methods of Sampling and Testing.

This resolution, by reason of accidental causes, although adopted by the Section, was not presented by it to the Secretary General or to any member of the executive committee of the Congress appointed to pass upon resolutions and recommendations. It was only received by the authorities of the Congress after its adjournment. It seems, therefore, to be improper to comment upon it in this general report, devoted, as it is, to the resolutions of the Sections and the recommendations which met with the approval of the Congress, as it can not be said definitely that the resolution would have been approved in its present form or with modifications by the executive committee and the Congress. Inasmuch, however, as it was a Sectional resolution, drafted for the express purpose of carrying into effect a conclusion or resolution of the First Pan American Scientific Congress, and inasmuch as it proposes a method of procedure which the Governing Board of the Pan American Union is in a position to consider and to accept with or without modifications, it seems to be advisable to include it in the general report and to bring it in this way to the attention of the authorities of the Pan American Union for such consideration as the members of the Governing Board may be disposed to give to it.

ARTICLE 39. The Second Pan American Scientific Congress, recognizing that the education of the public in the elementary facts of malaria is of the utmost importance, requests that—

The American Republics inaugurate a well-considered plan of malaria eradication, based upon the recognition of the principle that the disease is preventable to a much larger degree than has thus far been achieved.

The Eighth Section of the Congress considered and discussed at great length questions of public health and medical science, and its resolutions concerning the eradication of malaria and of yellow fever, although couched in brief and summary terms, are of the utmost importance. That

the eradication of malaria would be a benefit to all the countries where it exists needs neither elaborate statement nor comment. The difficulty in this, as in most cases, is to devise "a well-considered plan" for the eradication of the evil.

The Congress did not attempt to do so, but contented itself with advocating the inauguration of a well-considered plan, when found, because, in the opinion of the Congress, the disease can be prevented to a much greater degree than has hitherto been the case, and that, as a prerequisite to any plan and to its application, the public should be educated in the elementary facts concerning the matter.

It was pointed out in the discussions of the Section that in semi-tropical and tropical regions of the Western Hemisphere the supreme importance of malaria as a problem of public health was recognized by all governmental, medical, and sanitary authorities.

It was stated by competent authorities that the economic loss due to the prevalence of malaria could be overcome by diminishing the mortality, that the loss occasioned by mortality due to malarial fever is one of the most serious evils affecting the health and happiness of the people, and that the problem in all its aspects has not yet received the amount of public interest and scientific investigation commensurate with its world-wide importance. The recommendation which was made by the Section and approved by the Congress is calculated to call the attention of governments to the problem and to the fact that it is preventable and will, it is to be hoped, cause all American countries where malaria exists to inaugurate the well-considered plan, when devised, for its eradication and control, based upon the recognition of the fact that the disease is in reality much more preventable than hitherto.

ARTICLE 40. The Second Pan American Scientific Congress urges that—

The American Republics in which yellow fever prevails or is suspected of prevailing enact such laws for its eradication as will best accomplish that result;

Inasmuch as yellow fever exists in some of the European colonies in America, they be invited to adopt measures for its elimination.

It is common knowledge and indeed common experience that yellow fever has been a plague to the American countries, and it is a matter of congratulation that the patient and sacrificing devotion of scientists has discovered the cause and has applied the remedy, whereby our continent may be freed from this great scourge. Notwithstanding the possibility of its eradication, it nevertheless prevails in certain American countries and in certain of the European colonies of America.

The Congress, therefore, urged that such laws be enacted as will best accomplish its eradication, and, in view of the existence of the disease in some of the European colonies of the American continent, that the Governments thereof be invited to adopt measures of a kind calculated to secure its elimination.

Although yellow fever now exists in America in but few foci, yet the increase in the susceptibility of the population renders the risk greater from such foci than formerly, as under present conditions epidemic outbreaks are likely to occur in such places, which was not previously the case. This danger will increase from year to year, as the susceptible population increases as long as the foci of yellow fever exist. The difficulty of absolutely eradicating yellow fever may, therefore, be decidedly greater in the future than at present, on account of the greater number of infected foci which will then exist.

If, however, yellow fever is once completely eliminated, there will be no danger of its reappearance at any place, no matter what the local conditions of mosquito production may be. A result so beneficial to all mankind should appeal to philanthropists the world over and enlist their sympathy and aid.

The present time seems to be propitious for undertaking the eradication of yellow fever from the Americas, and for this reason the resolution was adopted. It may be that, owing to the political organization of the American Republics, measures of the nature required can only be taken by the States or municipalities. If such be the case it is advisable that States or municipalities in which yellow fever exists, or in which it is suspected to exist, be urged to enact the legislation necessary to accomplish this end.

As in the case of malaria, so in the case of yellow fever, the Congress did not prescribe a definite method. It should, however, be stated that the section suggested, as the line of approach to procure this result, the elimination of the breeding of Stegomyia mosquitoes (*Aëdes Calopus*), other measures being distinctly secondary thereto.

ARTICLE 41. The Second Pan American Scientific Congress recommends that—

Such of the American Republics as have not already done so should ratify the international conventions concerning the white-slave trade.

Representatives of fifteen European nations and of Brazil met in Paris from July 15 to 25, 1902, upon the invitation of the French Government, and on July 25, 1902, adopted, for submission to their respective

Governments, a project of arrangement for the suppression of the white-slave traffic, "being desirous," as was stated in the preamble of the treaty of May 18, 1904, putting the project of arrangement into effect—

> to assure to women who have attained their majority and are subjected to deception or constraint, as well as minor women and girls, efficacious protection against the criminal traffic known under the name of trade in white women.

After extended discussion, a convention for the repression of the trade in white women, identical in terms with the project of arrangement, was signed in the city of Paris on May 18, 1904, by duly authorized plenipotentiaries of Germany, Belgium, Denmark, Spain, France, Great Britain, Italy, The Netherlands, Portugal, Russia, Sweden and Norway, Switzerland. The United States was not a party to this convention, but taking advantage of Article 7 thereof, permitting the adherence of nonsignatories, the United States adhered to this convention on June 6, 1908, and at the time of adherence of the United States, the Governments of Austria-Hungary and Brazil had, as stated in the President's proclamation of June 15, 1908, likewise adhered to the said convention.

In 1910 a second conference was held at Paris, which negotiated two conventions. The first was concluded between Germany, Austria-Hungary, Belgium, Brazil, Denmark, Spain, France, Great Britain, Italy, The Netherlands, Portugal, Russia, and Sweden for the purpose of giving the greatest possible efficacy to the repression of the traffic known under the name of the "white-slave trade." The second convention, likewise concluded at Paris and bearing the like date of May 4, 1910, was an agreement for the suppression of obscene publications, concluded by Austria-Hungary, Germany, Belgium, Brazil, Denmark, Spain, France, Italy, The Netherlands, Portugal, Russia, Switzerland, and the United States of America.

It will be observed that Brazil was the only American signatory of the Convention of May 4, 1910, for the suppression of the white-slave traffic, and that Brazil and the United States were the only American signatories of the agreement for the suppression of obscene publications. It may be said in passing that the United States felt itself unable, because of constitutional difficulties, to adhere to the first convention of May 4, 1910, but that it not only signed the agreement relative to the repression of the circulation of obscene publications, but proclaimed it as law of the land on April 13, 1911.

It is unfortunately a fact that the trade in women, which is known to exist between the various Nations of Europe, between Europe and Asia, and between Europe and Africa, not only exists between Europe and the

Americas but between North and South America. In view of this situation and of the determined and high-minded efforts made by the leading Nations of the world to suppress this iniquitous traffic, it is highly desirable that the American Republics take up and seriously consider the advisability of adhering to the conventions already concluded or of concluding other conventions if for one reason or another the existing conventions are not considered wholly satisfactory. The Congress contented itself, however, with the simpler recommendation that the American Republics adhere to the existing conventions, because their subject matter, although deeply concerning the Republics from standpoints of morality and of public health, was nevertheless political in its nature, and it was felt that it would be more in harmony with the nature and scope of the Congress and its nonpolitical character for the Congress to content itself with the simple recommendation that the Republics ratify the existing conventions concerning the white-slave trade.

ARTICLE 42. The Second Pan American Scientific Congress recommends that—

There be established throughout the American Republics uniform methods in the presentation of statistics, in the classification of merchandise and in the manufacture thereof, in the standard of weights, measurements and tests, in nomenclature and specifications, in administrative customs regulations, and in the schedules of port charges.

Provision be made for the collection and study of the data thus made available, through some organization which will assure a thorough and scientific comparative study of the questions involved.

The program of Section IX included the leading financial and industrial problems confronting the Republics of the American Continent. It is natural, therefore, that long before the assembling of the Congress the program of this section should have aroused keen interest, not only amongst those appointed as delegates but also in the leading scientific organizations of Central and South America. The selection of certain leading topics well in advance of the meeting of the Congress enabled the delegates to undertake special inquiries on such topics prior to leaving their respective countries, and thus added greatly to the interest and value of the sessions.

Few questions have aroused such lively interest in recent times as that of better means of communication between the countries of this

continent. Two circumstances have greatly contributed to bring this question into the foreground of public attention: The opening of the Panama Canal and the outbreak of the European War. While the canal was being built but few persons realized its wonderful possibilities. Almost simultaneously with the opening of the canal there came the outbreak of the European conflict, with its attendant suspension of many lines of communication.

In this state of things nothing was more natural than that the program of the Second Pan American Scientific Congress, broad enough in its scope to comprise matters of everyday interest, should include a subsection devoted exclusively to the discussion of this vital topic. The committee in charge of Section IX, however, realized that the solution of this problem would involve certain national and even local issues. In keeping, therefore, with the high scientific character of the work to be undertaken by the Congress, the committee planned a program for this subsection which would lead to a thorough discussion of the fundamental principles involved.

Provision was made for dealing with the subject of transportation from the standpoint of present-day problems, covering, for example, topics such as the regulation of public utilities, future railway development, the "safety-first" movement, and the program of the Section even included such recent themes as air-gliding boats for river navigation and the aeroplane as a means of communication.

Closely and logically related to this matter of transportation comes that network of relations designated by the general term of "commerce." Here again the nations of the world, neutral as well as belligerent, were suddenly called upon to readjust their business relations in the presence of totally new conditions. A true conception of the real conditions obtaining in each of the countries was necessary before any helpful cooperation could be effected. It was consequently proposed that the effects of the war upon the commerce of each Republic be closely studied by financial and commercial experts, aided by observations from eminent authorities on international trade. Through such an interchange of opinion a forward step was taken toward agreement upon the fundamental principles that must determine the maintenance and expansion of inter-American trade.

The transition from commerce to finance was an easy and natural one, for no survey of international trade is complete without a study of the intricate problems of banking, international exchange, and credit facilities. Since a distinguishing feature of the work of this Congress

was to be the affiliation of many learned societies, the Section had the great advantage of working with and enjoying the hospitality of the American Economic Association and the American Historical Association.

In order to place before the members of the Section the data necessary for a judgment, each country was invited to describe the workings of its financial system and to point out any desired changes.

One of the pressing problems of young Nations is sufficient capital with which to develop their natural resources. Stress was therefore laid upon this, and one whole session devoted to its discussion. Another problem which had been brought to the fore at the recent Pan American Financial Conference was the possibility of establishing a common monetary unit, and the subject was made one of the special Pan American topics. Of no less importance, and probably of greater urgency, is the question of adequate credit facilities as a prerequisite to the expansion of trade. It was the purpose of the committee in charge of the subsection on finance to bring this theme to the attention of the merchants and financiers of the United States, so that a clear picture of its close relation to a possible extension of trade between the countries of the American continent might be presented to all interested in promoting international trade.

Finance and taxation are so closely allied that it seems impossible to separate them. Delegates from the several countries presented outlines of their systems of taxation. A special effort was made to have papers presented by recognized authorities in the United States dealing with certain aspects of the problems which the United States had been compelled to face, and this interchange of experience was useful to all of the countries represented in the Congress.

Two principles governed the drafting of the program of Section IX. To the first reference has already been made, but it is not out of place to repeat it. This was the close relation established between this section and the American Economic Association, and to a lesser degree with the American Historical Association. Apart from the material benefits derived from this cooperation, the visiting delegates were afforded the opportunity of coming into direct and personal touch with financiers and economists of the United States to a greater extent than would otherwise have been possible.

The second guiding principle was the emphasis upon the Pan American topics assigned to the first week of the sessions. In the presentation of these topics, invitations were extended to experts representing North, South, and Central America.

But to take up the consideration of Article 42.

The subject matter of this resolution has been of vital interest to all of the Republics of America for so long a period that it was included in the program as a Pan American topic. After an animated discussion, it was evident that no scientific study could be undertaken until a method had been devised of gathering complete and authoritative data and that this material should be systematically studied under the direction of expert statisticians. The delegates were agreed that, as soon as some such thorough investigation was completed, practical uniformity in the presentation of statistical material would not only be feasible but highly desirable. It was also the general opinion of the members of the Section that it is important to take a further step forward in order to secure uniformity in customs regulations and in port charges, as direct aids to inter-American commerce.

It was pointed out during the discussion that, in accordance with the recommendations of the Second Pan American Conference, held at the City of Mexico in 1902, a conference was convened for the discussion of customs regulations and their possible simplification. This conference was held in New York in 1903.

The Third and Fourth Pan American Conference, held at Rio de Janeiro in 1906 and at Buenos Aires in 1910, likewise dealt with these problems and various specific recommendations were made at these conferences, to which the members of Section IX felt that effect should be given as soon as possible, and that an effort should be made to take advantage of the advance effected in this field during the past twenty-five years to bring about such uniformity as might be possible in the various matters mentioned in the resolution.

The question of uniformity in manufacturing methods and materials was considered in the section devoted to engineering, and it was there pointed out that the scientific, industrial, and commercial relations among nations are greatly facilitated when uniform standards are in use and when the most improved materials and apparatus are bought and sold under common specifications.

The Ninth Section proposed the appointment of a commission by all the American Republics to bring about the unification of standards, measures, weights, and methods of manufacture and technical nomenclature and to agree upon standard specifications for the principal materials entering into international commerce and manufactured articles, with the understanding that these specifications were to be revised from time to time with the progress of the arts. The Congress considered

that the resolution could be made to include the additional proposals of the Engineering Section by a slight modification in the language of the resolution as originally drafted by Section IX, and the text of this resolution was therefore slightly modified to accomplish this purpose, as it appears in Article 42.

It will be noted that the second paragraph of this article presupposes the collection and study of the data upon the subjects mentioned in the first paragraph and that a thorough scientific investigation of the problems be made by or through some organization. Just what that organization should be the Congress did not attempt to determine, in the belief that, if the nations were once convinced of the necessity of considering these problems and of reaching an agreement upon uniform methods, they would hit upon the method or methods best calculated to give effect to the recommendation.

ARTICLE 43. The Second Pan American Scientific Congress deems it advisable that—

The American Republics agree upon a uniform date for the taking of the census and that uniform methods be adopted in the collection, arrangement, and presentation of commercial and demographic statistics.

This is not the only instance in which the Congress recognized its limitations and kept strictly within them. This article should be considered in connection with Article 32, although it covers a different field. The members of the Section were of opinion that the census of each of the American Republics be taken approximately at the same time and that, as far as possible, uniform schedules and classification be used. In like manner, it was deemed desirable that uniform principles be formulated and adopted in this arrangement and presentation of commercial and demographic statistics.

ARTICLE 44. The Second Pan American Scientific Congress is of the opinion that—

It is highly desirable to make a scientific study of the systems of taxation existing in the different American Republics.

One of the most serious problems confronting most of the Republics of the American Continent at the present moment is the question of securing adequate revenue to meet current needs. In most cases the major part of ordinary revenue has been derived from customs dues. The outbreak of the European War resulted in a sudden and violent

decline in revenues from this source, amounting in some cases to 70 and 80 per cent. The seriousness of the situation was such that in a few instances the governments found themselves unable to meet current obligations and to pay the salaries of public officials. This situation has brought before all of the Republics of the American Continent the question of devising a system of taxation, which will assure continuous and uninterrupted revenue and which will protect them against violent fluctuations by reason of events beyond governmental control.

In every country of the American Continent, the question of taxation is now receiving widespread attention, not only on the part of governmental officials but also of citizens and of civic organizations. It was but natural that this situation should find expression at the Congress. There was an earnest desire on the part of delegates to acquaint themselves with the systems of taxation prevailing in other countries, and to take with them guiding principles for use in their respective countries. It was believed, however, that what is most needed at the present time is a careful, systematic presentation of the systems of taxation prevailing in each country, together with recommendations for such changes as may seem desirable. Such studies will make the experience of each country available to all and it was felt that with such interchange of experience an important step forward would be taken.

ARTICLE 45. The Second Pan American Scientific Congress urges that—

> The American Governments, deriving important revenues from the consumption of alcohol, organize their systems of taxation in such manner that their economic interests be subordinated to the higher interests of a social and moral order, which tend to the suppression of alcoholism.

This resolution was proposed and supported because it was felt that it was a mistaken policy, opposed to the higher interests of a social and moral nature, to derive revenue from the consumption of alcohol. Experience shows that when a particular commodity can produce with ease and rapidity revenues which may be urgently needed there is a tendency to encourage the use or the consumption of this commodity. And if the enlarged consumption of this commodity is opposed to social order, the revenue obtained is at the expense of the well-being of the community.

Although the resolution refers to a specific commodity, it nevertheless lays down what is confidently believed to be a general principle, namely, that economic interest should be subordinated to the higher interests of a social and moral order.

ARTICLE 46. The Second Pan American Scientific Congress deems it desirable—

That the monetary systems of the American Republics be subjected to careful scientific study with a view to making the experience of each available to all.

The members of the Section realized early in the discussions that however desirable a uniform monetary standard for the entire American continent might be, the time was not ripe for so drastic a recommendation. There was a general feeling that the first and greatest need was a careful study of the monetary systems of each of the Republics, and that in such studies the negative and positive lessons to be drawn from the experience of each country be clearly set forth.

The question of monetary systems gave rise to considerable discussion, and much profit was derived from the interchange of views and experience. In the hope, however, that a complete and exhaustive presentation of the monetary systems in each country might be made in the near future, the Section adopted a resolution recommending that such monographic studies be undertaken.

ARTICLE 47. The Second Pan American Scientific Congress especially and earnestly recommends, in order to unite the various technical, medical, legal, and other scientific associations of the American Republics—

The establishment of an Intellectual Pan American Union, to be divided into such groups and sections as may be deemed convenient or advisable, the details whereof are contained in the records of the Congress and in the form of four propositions devoted to the proposed Union, which may, in the opinion of the Congress, be carried into effect either through the instrumentality of the Pan American Union or by means of some other existing agency or institution to be created, in the confident belief that the establishment of such a Union will lay broad and deep the true foundations of intellectual Pan Americanism.

The present article was neither presented to nor came from any Section as a recommendation to the Congress. It was the result of four projects, three of which dealing, respectively, with a Pan American University Union, with a Pan American Library Union, and with a Pan American Archæological Union, were presented to the Executive Committee by the chairmen of the Argentinian, Brazilian, and Chilean delegation, and

the fourth proposition, that of a Pan American Intellectual Union in which the others could be merged, was proposed by the following three official delegates, acting in their private capacity: Messrs. ERNESTO QUESADA, of Argentina; ALEJANDRO ÁLVAREZ, of Chile; and JAMES BROWN SCOTT, of the United States.

It will be observed that the recommendation was not an ordinary but a special recommendation on the part of the Congress to establish an Intellectual Pan American Union to bring and to bind the various associations of different character into a single continental union. It was felt that it was unwise to enter into the details of the proposed union, as they would naturally be many and varied as well as complicated, and that they could only be worked out satisfactorily after the acceptance of the principle. The projects themselves must be examined in order to understand their nature and importance, and the Congress in its recommendation directed that they be embodied in the records so as to permit of easy reference and consultation. Therefore, the first three projects referred to above here follow in full:

1. PROJECT FOR THE CREATION OF A PAN AMERICAN UNIVERSITY UNION.

The Chairmen of the Argentine, Brazilian, and Chilean Delegations submit for the approbation of the Congress a project for an inter-American University Union, destined to complete, in the intellectual field, the work initiated by the present Pan American Union in the political field.

The reasons underlying this project are briefly stated as follows:

The great European war is the most transcendental event recorded in the history of mankind.

If the great social upheavals, the French Revolution, the Napoleonic wars and the emancipation of the countries of the New World produced profound modifications in the political, economic, and social organization of the States and in intellectual life, even greater changes are already making themselves felt in all those fields of activity.

A new period has begun in the history of civilization, characterized by a series of problems of every kind, universal as well as American.

On the other hand, and in the purely intellectual domain, the development of the sciences during the course of the last century has made it convincingly apparent that many doctrines should be perfected, recast, or abandoned, to give way to new ideas more in harmony with the social conditions now being established. The political and social sciences above all should be the object of most exhaustive studies and these should be submitted to rigorous criticism and scrutiny by methods appropriate to the object pursued.

In order to achieve any degree of success in opportunities of study and investigation now offered to men of science in the present epoch, the combined force of all of them is necessary, free from preconceived convictions,

free from rivalries national in character, and free also from the domination of ideas or doctrines or creeds of established political parties.

A university union that would coordinate the forces of all persons charged with the formation of the mentality of the new generation is perhaps the best means of achieving harmony of views in our hemisphere.

In America it is easy to realize this intellectual union because in the realm of politics a Pan American Union is already in existence, charged with the study of certain of the great problems that interest all the States of our hemisphere. The Pan American University Union would be, in the sphere of science, the natural complement of the Pan American political union. Both should contribute to the development of the American conscience and to the creation of new and substantial bonds of union among the countries of our hemisphere, and thus enable those countries to go forward with their development under the sheltering protection of peace and fraternity, and to make impossible on this side of the world a catastrophe like that which is now desolating the most civilized peoples of the European Continent.

In conformity with these ideas, the undersigned submit for the approval of this assembly the following project:

ARTICLE I. That there be created in the United States a union of the universities of the Americas, to be known as the "Pan American University Union," devoted to the concentration and coordination of intellectual activity in all those institutions for the benefit of American progress and the diffusion of culture in the new world.

ARTICLE II. The University Union has for its object:

(*a*) To develop and advance the sciences, particularly in their American aspect, and to study them under a severely critical criterion of investigation and exposition unrestrained *a priori* by general systems of philosophy, politics, religion, or society.

(*b*) To communicate plans of work, of study, and systems of university organization for the purpose of creating a uniform American type of instruction.

(*c*) To determine annually the matters that may be of particular interest throughout the continent and which may properly become the objects of joint scientific investigation, the results obtained to be communicated through the medium of professors or publications.

Special attention should be given to matters relating to the education of the American democracy, to devising better means of tightening and strengthening the solidarity of the States of the new world, to the possibility and desirability of regulating in a uniform way all or part of the organization or the legislation of the States, and to spreading the university influence in morals and the sciences throughout American Society.

(*d*) To hold periodical congresses that shall have for their purpose the elucidation or exposition of scientific investigations.

(*e*) To organize and facilitate the interchange of professors and alumni among the various continental universities.

(*f*) To stimulate and organize Pan American congresses of students.

(*g*) To create American academies, clubs, or institutes for the

study and diffusion of matters that are of greatest interest to the continent.

(*b*) To serve as the consultative organ for the Pan American Union in matters which that institution may think it advantageous to submit for its study and report.

ARTICLE III. All of the official universities of America and the free universities recognized in the States wherein they operate shall form parts of the Union.

ARTICLE IV. The Union shall be administered by a Governing Council, to be composed of a university representative for each country. The official and free universities of each State shall choose, by election, a representative who shall serve for a term of three years and who may be reelected indefinitely.

ARTICLE V. The duties of the Governing Council are the following:

(*a*) To labor for the realization of the purposes specified in Article II and to adopt the most advantageous means to that end.

(*b*) To propose the professor or professors who are to expound the American themes, determined by the Governing Council, in the various universities;

(*c*) To provide appropriate means whereby the lectures of the professors or the papers especially prepared in each country, if deemed worthy of such distinction, may be printed and distributed among the different universities. Each delegate to the Council shall specify the work or paper of his country that merits publication.

ARTICLE VI. The Governing Council of the University Union shall perform its labors in the home of the Pan American Union at Washington, where it shall organize the necessary offices in order to develop scientific activity which shall be germane to and consonant with the political unity pursued by the Pan American Union. The Governing Council shall appoint, as permanent officers, a Director and a Secretary General.

ARTICLE VII. The expenses of the University Union shall be defrayed by assessments upon the different universities, by subsidies from the States, and by donations from individuals. The Pan American Union shall be charged with the collection and disbursement of the subsidies and with the stimulation of interest such donations as its special contribution to the lofty efforts toward the Intellectual Pan American Union which the present organization seeks to realize.

ARTICLE VIII. Until the Governing Council shall be definitively organized as provided in Article IV the Director and Secretary General charged with the organization of the preparatory work shall be appointed by the Pan American Union.

EDUARDO SUÁREZ MUJICA,
DOMICIO DA GAMA,
ERNESTO QUESADA.

2. PROJECT FOR THE CREATION OF A PAN AMERICAN LIBRARY UNION.

The Chairmen of the Argentine, Brazilian, and Chilean Delegations submit for the approbation of the Congress a project for an inter-American Library Union, destined to complete, in the intellectual field, the work initiated by the present Pan American Union in the political field.

One of the principal objects of the existing Pan American Union, in fact, consists in tightening the bonds of every character that bind the divers peoples of the American continent, as well in the political, economic, and social spheres as in the intellectual. It therefore becomes essential to complement that organization by the creation of suitable agencies for putting these aims into effect in the most practical manner. With this end in view, the undersigned suggest the following:

ARTICLE I. That there be created a Pan American Library Union, to be composed of the various public libraries of America, national and university, and which shall be located and conducted in the home of the Pan American Union at Washington, where the necessary offices shall be organized.

ARTICLE II. The Pan American Library Union is to have for its object:

(*a*) The establishment of relations among the various libraries of America, to the end that their treasures, manuscripts as well as printed books, may be available to any investigator in any part of the continent;

(*b*) The establishment of the bibliography of America in the various branches of learning, in accordance with a uniform plan and the publication annually of a list of all publications issued in the several countries of the continent, with critical notes concerning the contents, respectively, of the most important works;

(*c*) The coordination of the systems of library economics and library science in America for the purpose of making uniform, as far as possible the classifications in all libraries and the publication of general or partial catalogues of their sections devoted to Americana;

(*d*) The direction of the inter-American service of exchange of publications on the basis at present established by the Pan American Conferences, thus simplifying and perfecting that service and extending it not only to official publications but to those of corporations and of private persons, destined for public, social, or individual establishment, in order thereby to make it more effectively consonant with the system employed in the Smithsonian Institution, at Washington;

(*e*) The establishment of an auxiliary service that will render to investigators any publication that may make its appearance anywhere in America;

(*f*) The direction of the publication of comparative catalogues confined to printed or manuscript books of or relating to America in order that students may familiarize themselves with the intellectual labors of the Americas;

(*g*) The organization of a system for the publication of critical editions of the principal American works relating to matters of special interest to the continent;

(*h*) The organization of a library information service, to the end that investigators may obtain therefrom information as to everything published in America, whether in the form of a book or of an article appearing in a periodical, relating to the subject of their investigations;

(*i*) The development of a system for the publication of reproductions of all important works of or relating to America that have become exhausted, whether *fac simile* or not, but containing critical annotations;

(*j*) The organization of a system for the interchange of library shelf markings, whether of official or private libraries, prepared in accordance with a uniform plan;

(*k*) The organization of a system for the publication of all shelf marks that have appeared in periodicals and reviews, whether old or new, of or relating to America;

(*l*) The organization of a system for the publication of the shelf marks of all those documents relating to America that are contained in American and European archives.

ARTICLE III. In order to achieve its ends, the Pan American Library Union shall constitute a confederation of all the libraries of the continent and shall centralize all the suggestions and requests of those libraries respecting the matters specified in the preceding article, and especially as to matters covered by paragraph (*a*). Thus any student who may need a work that can not be found in his local library but which may be in any other library on the continent may make a call for it at his own library, which will transmit the call to the Union at Washington and the latter will institute a direct search, from library to library, for the desired book. When received by the library to which such call is first made, the work will be promptly supplied to the person making the call for such time and under such conditions as shall be determined, the library receiving the same to be responsible for its direct return later to the library supplying it. In this way the investigator in the Americas, without changing his residence, can avail himself of the millions of books located in all the libraries on the continent.

ARTICLE IV. If the work supplied as a result of such investigation should be submitted by its author to the Pan American Library Union with a favorable report from the local library, it could be made the object of a recommendation for its publication and circulation among all the libraries of the continent in order that it might be placed within the reach of all associations or private persons.

ARTICLE V. The Pan American Library Union shall be administered by a Council composed of delegates elected by a majority vote by each country and by the national libraries and university libraries of those countries. The delegates shall hold office for three years and may be reelected indefinitely. The Council shall meet annually in the city designated at

the session of the previous year, the first meeting to be held in the city of Washington.

ARTICLE VI. The said Council shall, once in five years, organize an extraordinary meeting of a congress of libraries at which may assemble all persons who form part of the superior personnel of the libraries of the continent, whether officers of associations or private persons. Said congress shall occupy itself with questions relating to the organization and perfecting of libraries.

ARTICLE VII. The Pan American Library Union shall have a permanent Director and Secretary General, established at the seat of its offices, and they shall devote themselves to the organization and direction of the operations specified in Article II. The said functionaries shall be appointed by the Council for a term of five years and may be reelected indefinitely. In the first instance and until the Council shall have been constituted, they shall be designated by the Pan American Union.

ARTICLE VIII. The expenses incurred by the Pan American Library Union shall be covered by contributions from the respective countries on the basis of a strict equality and by donations of private persons. The Pan American Union shall be charged with the arrangement for such subsidies and the stimulation of interest in such donations as its special contribution towards the great purpose of inter-American intellectual union, which the present organization seeks to realize.

EDUARDO SUÁREZ MUJICA.
DOMICIO DA GAMA.
ERNESTO QUESADA.

3. PROJECT FOR THE CREATION OF A PAN AMERICAN ARCHEOLOGICAL UNION.

The Chairmen of the Argentine, Brazilian, and Chilean Delegations submit for the approbation of the Congress a project for an inter-American Archeological Union, destined to complete, in the intellectual field, the work initiated by the existing Pan American Union in the political field.

The advancement of modern science requiring, as it does, the study of the deposits, tombs, and monuments, *in situ*, as a first and indispensable prerequisite to the deduction from such facts as have become known of the conclusions which, taken together, may supply new elements to aid in the discovery of the truth with respect to the pre-Columbian history of this continent, and to the end that the spirit of gain, stimulating the ignorance of the natives, may be prevented from destroying the deposits through the collection of isolated pieces for sale—a practice that serves only to fill the cases of museums and private collections with articles having a value at best but relative, and at times nil, because of the absence of exact data as to origin—the undersigned, desiring to bring to an end this state of things, and in the interest of Pan Americanism, present the following project:

ARTICLE I. That there be created, among the States of America, a Pan American Archeological Union, destined to safeguard the archeological treasures of the respective countries, in the interest of progress in the corresponding study of this most interesting branch of human learning.

which is so important to the knowledge of the history and sociology of our continent.

ARTICLE II. In addition to the special laws enacted in the several countries with respect to this object, the Pan American Archeological Union will offer to cooperate with those Governments, in order that through its counsels laws may be made more effective by giving them a practical character science and experience have shown to be productive of the best results.

ARTICLE III. The Pan American Archeological Union should facilitate the study of archeology in order that the Union may become an intermediary between the American museums, and even between these and recognized specialists, in connection with the interchange of data, special publications, photographs, models or tracings of objects, sketches or drawings of ornamentation, etc., including duplicates of series of archeological objects.

ARTICLE IV. The Pan American Archeological Union shall stimulate and assist archeological missions sent into the various American countries and give them every guaranty of seriousness, of the honesty of the explorers and of the delivery of the objects recovered to the country wherein the work shall have been prosecuted, exacting as its sole compensation the retention of such duplicates of the objects as may be left with it by the explorers.

ARTICLE V. The Pan American Archeological Union shall seek to prevent, by all means possible, illicit commerce in American antiquities, and shall pursue its efforts both within and outside the continent, in order to bring to an end the destruction of deposits, which has resulted, and continues to result, in increasing and irreparable loss to science.

ARTICLE VI. The Pan American Archeological Union shall serve as the consulting organ of the Pan American Union in all requisite ways with respect to matters wherein its aid may be sought.

ARTICLE VII. The Pan American Archeological Union shall be constituted by:

(*a*) A delegate from each country, elected by a majority vote by those institutions and museums or universities of each country that concern themselves with American archeology. Such delegates shall hold office for three years and may be reelected indefinitely;

(*b*) A corresponding member in each country, preferably a director of the service devoted to the conservation of monuments when such service exists and with whom the Union shall be in direct relation. The corresponding member shall be appointed by the government of the State and shall serve as an intermediary between it and the Union.

ARTICLE VIII. The delegates of the Union shall elect its officers by simple majority vote; they shall endeavor to realize the purposes for which it is created and shall perform their duties in the building of the Pan American Union at Washington. Until the first Council shall have been constituted, the authorities mentioned, who shall comprise a Director and a Secretary General, shall be designated directly by the Pan American Union, and they shall have for their principal duties the assembling of the said Council, the organization of appropriate offices, and the initiation of

steps toward the realization of the purposes of the Pan American Archeological Union.

ARTICLE IX. The expense incident to the discharge of the functions of the Pan American Archeological Union shall be met by subsidies from the respective States and institutions and by donations from private persons.

EDUARDO SUÁREZ MUJICA.
DOMICIO DA GAMA.
ERNESTO QUESADA.

It does not appear necessary to restate the provisions of these important projects in terms other than those employed by the proposers, or to advance reasons other than those which they themselves considered to to be the justification of the projects and calculated to secure their acceptance. It is proper, however, to call attention to the fact that the three special unions presuppose a close and intimate connection with the Pan American Union, in whose building at Washington they are to be housed, with funds supplied by Governments, the various institutions forming part of the proposed Unions, and by private persons interested in their success. If the recommendation of the Congress, contained in Article 22, be carried into effect, a department of education would be created and located in the Pan American Union, and if the project for the creation of a Pan American University Union were realized it would likewise be located in the Pan American Union, and the two projects could undoubtedly be combined and carried into effect if the Governing Board of the Pan American Union should consider one or the other as feasible, devise a plan for their realization, and secure the cooperation of the American Republics represented by the Governing Board.

Inasmuch as these are matters for the Governments to consider, and as the Congress urged either the creation of the separate unions or of the greater intellectual union, of which they should form parts, without suggesting or passing upon the details required for their execution, it does not seem advisable to enter into or to discuss the details of execution in this general report on the Final Act; but it is necessary, however, to state, in clear, unequivocal, and formal terms, that the Congress accepted the three projects in principle and recommended that the necessary measures be taken in order to make them flesh and blood. It should be pointed out, before passing to the fourth project, that the three projects contemplate the enlargement of the activities if not of the scope of the Pan American Union, and that from this standpoint they are governmental projects, although they provide for the cooperation of institutions, both public and private, and of private persons.

The fourth project looks to the creation of a continental intellectual union, separate and distinct from the Pan American Union and from the direction or control of the Governments of the American Republics, although the Congress recommends the execution "either through the instrumentality of the Pan American Union or by means of some other existing agency or institution to be created." The chief solicitude of the Congress was to commend the projects and to secure the establishment of the Pan American Intellectual Union, including therein the University Union, the Library Union, and the Archæological Union, which have been set forth at length, and to unite the various associations of a scientific character which already exist or which will be formed in the different American Republics in such a way that they might be gathered into groups and assigned to appropriate sections of the Intellectual Union.

In commending the project for the formation of a Pan American Intellectual Union, the Congress did not commit itself to any particular method of creating it, but the proposal itself which was approved by the Congress advocates the formation of the Union as separate and distinct from a governmental union of any kind, whether existing or to be created, and to be supported by private funds, not by contributions from the Governments. This does not mean that the project repudiates cooperation of the Governments, because it specifically requests the Governments to appoint official delegates to the Congresses of the Union, to be called every five years. But the partisans of the project believed, and therefore stated, that science should not be controlled, although it may be fostered, by Governments, and that the spiritual and intellectual activities of the peoples of America can best be stimulated by a Union called into being and controlled by representatives of the scientific and scholarly thought of the Americas, without the domination, control, or interference of the Governments thereof. The project, however, uses no uncertain language, and should be left to speak for itself. It therefore follows in full:

> The undersigned members of the Congress, having taken cognizance of the three projects presented by certain delegations looking to the formation of three inter-American unions: One of the universities, another of the libraries, and another of archæological museums, consider that a fourth and more comprehensive one, a Pan American Intellectual Union, should, in its turn, be proposed to embrace these organizations and to include other bodies devoted to the various branches of human knowledge, and which are in harmony with the continental point of view.
>
> The existing Pan American Union constitutes an official organization, the creature of an international treaty among the different Nations of America and governed by the combined official representatives of all of them. It is proper to say, therefore, that it is an institution essentially

political. What is now proposed is an organization essentially intellectual, separate and distinct from the political and official interests of each Nation.

The projects already presented embrace three phases of this subject: The university, the library, and archæology. But there are, of course, others, since the various branches of human knowledge—from the moral sciences to the pure and applied—assume in America continental as distinct from universal characteristics. Setting aside this latter, and considering concretely the American conception of each, it is evident that for all Americans a greater interest lies in the advance in knowledge of the continental aspect of each problem and in a combined effort to include therein the study of each new phase presenting itself. It is indispensable to our continent to approach science from the continental point of view, for there is no course of study that can be pursued in the abstract and apart from regional peculiarities, which, with respect to true science, inject unique aspects, and, with respect to applied science, are usually of exclusive importance.

Thus to take an example from political economy which belongs to the group of moral sciences. This science has, in addition to its doctrinal and academic, its regional aspect. As the exponent of the actual economic activity of each human group, political economy presents, because of geographical conditions, special problems. It is, therefore, both logical and necessary to take into account national and regional elements and conditions. The same may be said of all courses of scientific study, from those of the purest to those of the most applied sciences.

Why, then, should not an intellectual center be constituted which would embrace the American aspect of human knowledge, which would reach all the students of the continent, which would enable them to cooperate in a common task, and which would give a forward impulse to all America, and thus cause to disappear the isolation in which its intelligence is dissipated? But such center should not bring about a doubling of the personnel in the present Pan-American Union, for the proposed union is of a wholly different character. It should seek to cultivate sentiments of intellectual cooperation and friendship among the inhabitants of the different countries and increase among these the knowledge and understanding of the various Nations of the continent. To this end a system of mutual assistance should be devised, maintained, promoted, and extended to the institutions, organizations, associations, and agencies considered necessary or useful in the fulfillment of all or any of the objects of the Union. In a word, a Pan American Intellectual Union should be organized which would be free from official participation, foreign to politics, and which would be the work of private efforts, whether by existing associations or by a confederation of the same, or by individuals, isolated or in groups.

If the Pan American Scientific Congress deems the realization of this idea desirable, it could recommend the formation of such a union to any of the existing foundations or endowments, or advise the creation of a new union, which private munificence could endow with the necessary resources. The example offered by the creation of the Carnegie Endowment for International Peace demonstrates the practicability of the idea, and it is to be hoped that private fortunes will gladly contribute to this new form of practical Pan Americanism.

The Congress might authorize the institution willing to take charge of the union, or which might be created for that purpose, to use the means and resources tending to that end, adopting the organization which in its opinion is most adequate thereto and framing regulations for its practical management.

Such a union, once established, might take into its charge the calling together and organization of the present Pan American Scientific Congress, arrange for its periodical meeting every five years, and put into practice, as subdivisions thereof, the unions referred to in the three projects presented by the delegations of Argentina, Brazil, and Chile, together with those which it might later be considered desirable to form.

For this purpose scientific institutions, associations, or societies existing or to be created in each of the American Republics should be confederated and their activities concentrated in a central organization in the capital thereof, to be further confederated with and in the Pan American Intellectual Union to be located in Washington.

The Governments of the American Republics would only be requested to name official delegates to the different periodical meetings, but without asking of those Governments any further intervention or participation of any kind.

In this way the new Pan American Intellectual Union would be an autonomous institution, dedicated solely to science, supported by its own resources, and independent of official action.

JAMES BROWN SCOTT.
ALEJANDRO ÁLVAREZ.
ERNESTO QUESADA.

The project of a Pan American Intellectual Union, as thus stated by its proposers, goes forth with the approval of the Congress, which specially recommended it, and of which the Congress itself said that the organization taking charge of its establishment will "lay broad and deep the true foundations of intellectual Pan Americanism." The proposers of this project believed that the one great field common to all of the Americas is the intellectual field, that in this domain there is neither great nor small, rich nor poor, that all stand alike upon a plane of equality, equality in this case being neither political nor legal but intellectual, that a Union of this kind, large enough and broad enough to include in its scope all branches of science, pure or applied, to be found in the American Republics, would create, as it were, the republic of letters for the Western World, with no boundaries but the possibilities of human thought and of human achievement. The proposers of the Intellectual Union thought that the visible organization or agency of the Union should preferably be located in the city of Washington and they believed themselves justified in the hope that private munificence would not merely stimulate the thought and scientific activity of the Americas where they exist but would tend to inspire the thought and to increase

scientific activities where they have not hitherto made themselves known and felt. An intellectual union of this kind would be the federation of national societies, associations, or organizations in the capitals of the different American Republics and would be, as it were, their great central scientific and intellectual clearing house.

The proposers of this resolution were aware of the difficulties and obstacles standing in the way of its realization, but, believing in the services that it would render not to one but to all of the American Republics, they laid it before the Congress for its approval, and this approval was freely and ungrudgingly given. They recognized the wisdom of the motto that would make haste slowly. They were unwilling to recommend that other projects might be merged in theirs before the Intellectual Union has shown its possibilities and had demonstrated its success. They therefore recommended that a beginning should be made with the three projects of the University Union, the Library Union, and of the Archæological Union, or with some other branches of science, and that from the experience had upon this smaller scale such confidence might be generated in the usefulness and services which the Intellectual Union could render as to include within its scope all of the sciences discussed in the sections of the present Congress and to make of it their accredited agent.

The general report leaves it as the Congress itself left it, with its special recommendation and with the assurance that, if established, it would "lay broad and deep the true foundations of intellectual Pan Americanism." The general report, however, calls attention in this connection to the concluding article of the Final Act, which requests the Government of the United States to transmit the resolutions and recommendations contained in the Final Act to the participating Governments and the suggestion that the Governments specially interested in any one of the resolutions or recommendations should take the initiative of carrying the same into effect, in the full consciousness that if the project for the establishment of an intellectual Pan American Union commends itself to any one Government or to private initiative the Intellectual Union will cease to be a project in becoming a beneficent institution.

ARTICLE 48. The Second Pan American Scientific Congress, upon the motion of the delegation of Chile, unanimously resolves that—

The Third Pan American Scientific Congress shall meet in the city of Lima in connection with the celebration of the anniversary of the independence of Peru, in 1921, and appoints for that purpose the following gentlemen: Messrs. Dr. JAVIER PRADO Y UGARTECHE, rector of the University of San Marcos, Lima;

Dr. MANUEL VICENTE VILLARÁN, Lima; and Dr. ALEJANDRO DEUSTUA, Lima, to constitute the Committee for the organization of the Third Pan American Scientific Congress.

The Congress neither has its headquarters nor does it meet in any one particular country, and each Congress determines both the time and the place of the meeting of its successor. Thus the First Pan American Scientific Congress, which met at Santiago, Chile, December 25, 1908, to January 5, 1909, determined that the Second Congress should meet five years later and in the city of Washington. Circumstances unnecessary to mention caused the postponement of the Congress, but when it met it met at Washington in accordance with the recommendation of its predecessor.

The present Congress decided, upon the motion of the Chilean delegation, that the Third Congress meet in 1921 at Lima, in the Republic of Peru, on the hundredth anniversary of the independence thereof. While it is true that the Congress recommends the meeting place of its successor, it must be understood that the recommendation is only made with the consent of the country in which it is proposed that the Congress shall next meet, for inasmuch as each of the American Republics is an equal and sovereign country, it is for each to determine by and for itself what shall or shall not take place within its territory. The Government of the country in which it is proposed that the Congress should meet is sounded, and upon its acceptance the recommendation is made, but as it is both a compliment and an honor to act as host to the Congress, the request is in the nature of a formality. The holding of a Congress, however, involves much time and thought, patience and devotion, on the part of the Government and people of the country in which it is to meet, and it is the custom at the time of the recommendation and its acceptance for the Congress to appoint a committee on preliminaries, to take charge of the organization of the Congress, and for this reason the members thereof are chosen from the country in which the next Congress is to meet, in this case Peru, upon the recommendation of the Peruvian authorities. In the present instance the gentlemen whose names appear in the article were chosen to form the nucleus of the Executive or Preparatory Committee, whose other members will be appointed by themselves or by the Government of Peru to arrange the preliminaries of the Congress and, after its adjournment, to publish its proceedings and to take such action as in the premises may seem necessary. Upon the meeting of the Congress its president and other officers are chosen, an Executive Committee of the Congress, composed of its members, is selected to take charge thereof

and during its continuance to supersede the local Executive Committee, which, however, as has already been stated in the introduction of this Report, resumes its functions after the adjournment of the Congress until the duties incumbent upon it have been performed.

ARTICLE 49. Finally, the Second Pan American Scientific Congress requests—

The Government of the United States to transmit the foregoing resolutions and recommendations contained in the Final Act to the Governments of the American Republics participating in the Congress, and suggests that any Government thereof specially interested in one or other of the resolutions or recommendations take the initiative to carry the same into effect.

It is a familiar adage that everybody's business is nobody's business, and the most elementary principle of administration is that the performance of a duty shall be vested in some determinate person or body. It is necessary that the proceedings of the Congress, if they are to be carried into effect, should officially be called to the attention of the participating Governments. This should be made a duty and the Government of the country in which the Congress has met should be charged with its performance. In the particular instance, the Government of the United States should be and was requested by the Congress to transmit the resolutions and recommendations contained in the Final Act to the Governments of the American Republics, and the recommendation is to be understood in the enlarged sense that the Government of the United States is not merely to transmit the resolutions and recommendations of the Final Act, but also all information, all documents of what kind soever, concerning the Congress which may be of service to the participating Governments. For example, the Government of the United States should prepare, publish, and transmit the proceedings of the Congress to each Government represented and taking part in the proceedings.

It will no doubt be the case that, while the Governments take a general interest in all of the resolutions or recommendations of the Final Act, the resolutions and recommendations will not make an equal appeal, for their value and importance depend, in part at least, upon national and in some instances upon local conditions. The Congress therefore recognized this probability, and suggested, as stated in the Article, that a Government specially interested in one or more of the resolutions or recommendations should itself take the initiative to carry the same into

effect. This method of procedure does not in any way interfere with the primary duty of the United States to transmit the resolutions and recommendations of the Final Act or to urge, if it should deem it advisable, that steps be taken to secure their realization. It does, however, invest any Government with the right to take the initiative in the matters specified in the Article and it would seem that, indefinite and vague as the recommendation may be, it nevertheless creates a duty on the part of the Government possessing such special interest to propose the measures to carry the resolution or recommendation into effect and to continue to interest itself in the matter, either until it has been realized or circumstances suggest a renunciation of the initiative taken in pursuance of the suggestion contained in the Article.

It was the hope, and indeed the expectation, of the Congress that the machinery devised by this Article would set in motion the wheels of Government, whereby the inertia so frequent and so deadening in the aftermath of a Congress would be avoided.

The Congress is fully conscious of its many shortcomings and of its manifold imperfections, which even a casual examination of its proceedings will not fail to disclose. It nevertheless ventures the hope that its labors may prove to be not wholly in vain, that it may be found in some small measure to have contributed to the success of future Congresses, in which it is, as it were, but an insignificant link in an ever-lengthening and indeed endless chain, and that through their combined efforts there may emerge an intellectual Pan Americanism whose vastness and beneficent influence are barely visible in the first faint beginnings of the intellectual and scientific cooperation of the Americas.

APPENDIX I.

ORGANIZATION AND RULES OF THE CONGRESS.

ORGANIZATION.

ARTICLE 1. In accordance with the resolutions of the First Pan American Scientific Congress, held in Santiago, Chile, December 25, 1908, to January 5, 1909, a second Pan American Scientific Congress will meet in the city of Washington in the month of December, 1915, under the auspices of the Government of the United States.

The Congress will open on Monday, December 27, 1915, and adjourn on Saturday, January 8, 1916.

ART. 2. The organization and procedure of the Second Congress shall be in charge of an Executive Committee, composed of, first, members appointed by the First Congress at Santiago; second, of members elected by the said committee.

ART. 3. The Executive Committee shall nominate the president and two or more vice presidents of the Congress and shall appoint the secretary general, assistant secretary general, and such assistant secretaries as may be necessary.

The Executive Committee shall appoint interpreters, clerks for the secretary's office, and such other employees as may be necessary.

The Executive Committee shall appoint honorary presidents and vice presidents to be selected from the participating countries.

The secretary general shall be the executive officer of the Executive Committee and shall have charge, in cooperation with the committee, of the preparations and arrangements for the Congress. He shall also conduct correspondence, supervise expenditures, and perform such other duties as may be assigned to him by the Executive Committee.

The assistant secretary general, in the absence of the secretary general, shall have authority to perform the duties of the secretary general.

ART. 4. The Executive Committee shall designate such committees as may be necessary.

The Executive Committee shall designate nine of its members to serve as chairmen of the nine main program sections of the Congress.

Each member of the Executive Committee so designated shall nominate the members of his section committee and shall select the chairmen for its various subsections. The chairman of each section shall be a member ex officio of each subsection committee.

ART. 5. The duties of the Executive Committee, in cooperation with the secretary general, are:

1. To arrange for the Second Congress and participation by the Government of the United States, the universities, and other scientific, national, and foreign corporations.

2. To take steps to secure the appointment of committees at the capitals of the American States by the participating governments, the duties of which committees shall be to cooperate in the preparations for the Congress; to prepare lists of the persons to be invited to participate in its proceedings; to procure an adequate representation from the several countries; and to suggest such questions as, because of their evident American interest, should be submitted to the Congress.

3. To prepare a list of members of the Congress in conformity with the provisions of Article 9.

ART. 6. After the election of the officers of the Congress, the Executive Committee shall act under their direction, but shall reassume its original functions after the adjournment of the Congress. It shall then have charge of the publication of the proceedings of the Congress.

SECTIONS.

ART. 7. The following are the sections into which the Congress will be divided, alphabetically arranged:

I. Anthropology.
II. Astronomy, Meteorology, and Seismology.
III. Conservation of Natural Resources, Agriculture, Irrigation, and Forestry.
IV. Education.
V. Engineering.
VI. International Law, Public Law, and Jurisprudence.
VII. Mining and Metallurgy, Economic Geology, and Applied Chemistry.
VIII. Public Health and Medical Science.
IX. Transportation, Commerce, Finance, and Taxation.

SECTION COMMITTEES.

ART. 8. The section committees shall hold separately such meetings as they may deem necessary for the determination of the matters submitted to them.

Each section committee may be subdivided into two or more subsection committees when deemed necessary, and two or more subsection committees may become a single committee.

It shall be the duty of each section committee, in cooperation with the secretary general—

I. To invite the preparation of papers on topics deemed of special interest to the Congress, to prepare a list of the papers received, and to present a program for each session of the sections and subsections under its charge.

II. To prepare the register of the members of its section.

III. To receive and classify such statements, studies, and communications as are sent to the section, and to designate the reporting member thereof.

IV. To make a report to the section of the papers that are not to be read by their authors.

V. To organize the section and subsections.

VI. To receive the papers of the respective section and subsections and to prepare them for publication.

MEMBERS OF THE CONGRESS.

ART. 9. The following persons will be members of the Congress:

I. The official delegates of the countries represented.

II. The representatives of the universities, institutes, societies, and scientific bodies of the countries represented.

III. Such persons in the countries participating in the Congress as may be invited by the Executive Committee, with the approval of the countries represented.

IV. Members of committees officially appointed.

V. Writers of papers.

ART. 10. All properly accredited members, upon the presentation of credentials, shall receive from the secretary general an appropriate membership card.

ART. 11. All members of the Congress shall be entitled to attend its sessions, to take part in the debates, and to receive a copy of such publications as the Executive Committee may issue.

ART. 12. Americans who are prominent in the field of science may be appointed honorary members of the Second Pan American Scientific Congress, whenever the Executive Committee deem proper to confer this honor upon them.

RULES OF THE CONGRESS.

I. The sessions of the Congress will extend over a period of 13 days, from Monday, December 27, 1915, to Saturday, January 8, 1916, at hours to be announced. The sections will meet simultaneously on each day; and the arrangement of the program will be in charge of the chairman and reporting member of each section, in consultation with the secretary general.

II. The time to be allowed for the presentation and discussion of each paper will be determined by the several section committees, after receipt of papers and reports; preference will be given to those subjects upon which the papers submitted are most important or useful to Pan-American countries in general.

III. In view of the great number of papers to be submitted, they should be as concise as possible. It is desirable that each paper shall be typewritten. They may be accompanied by illustrations and tabular matter to clarify and shorten descriptions.

IV. It is suggested that illustrations be limited in number, and be submitted upon sheets not over 10 inches by 22 inches (25 cm. by 56 cm.) including the border, or 9 inches by 21 inches (23 cm. by 53 cm.) inside the border.

V. Each paper should be accompanied by a résumé of not more than 1,500 words, followed by a footnote giving the bibliography of the subject to include references to important original papers and sources of information referred to in the paper.

VI. In view of the desire to take full advantage of the great progress of recent years, it is suggested that the papers submitted have special reference to the trend of recent progress and to the probable development of the immediate future.

VII. Papers descriptive of special works, and largely statements of facts, should be restricted to the particular work under consideration, and should give as much detail as is possible.

VIII. All resolutions presented in plenary session shall immediately be referred to the Executive Committee, which committee shall make report thereon to the Congress.

IX. All resolutions presented to sectional meetings shall first be referred to the subcommittee in charge of the section.

X. The official languages of the Congress will be the Spanish, the Portuguese, the French, and the English.

XI. In order to enable the officers of the Congress to prepare for its labors, it is essential that the authors of papers shall forward their papers to be received by the secretary general not later than November 1, 1915.

APPENDIX II.

TOPICS FOR PAN AMERICAN CONFERENCES.

In addition to the general topics described in the Preliminary Program, issue of April 15, the Executive Committee of the Second Pan American Scientific Congress authorized that the following important topics be discussed in a series of Pan American conferences, a conference on each topic.

These special topics, discussed in small groups of interested persons, lead to resolutions pertinent to the purpose of the congress. The mornings of January 4 and 5 were reserved for the conferences on these special Pan American themes.

SECTION I.

The desirability of uniform laws throughout the Pan American countries for the protection of antiquities, the systematic promotion of anthropological research, and the collection and scientific treatment of museum materials.

SECTION II.

Present condition, needs, and prospects of meteorological and seismological work in each of the participating countries of the Scientific Congress. The report from each country should contain a list of all meteorological and seismological stations and other local information pertinent to this report in that country.

SECTION III.

Conservation of the natural resources of a nation through Government ownership or control.

A national forest policy. The relation of forestry to the future development of Central and South America.

Governmental participation in irrigation development. (It is understood that the word "governmental" includes the States, country, province, or other political subdivisions and that the word "participation" might well include the construction, management, and settlement of irrigation enterprises.)

Are uniform regulations feasible among the different American countries for the prevention of the introduction and dissemination of diseases of animals? The prevention and eradication of destructive diseases of animals.

Pan American cooperation in plant quarantine.

The effect of the Panama Canal upon the distribution of farm products.

SECTION IV.

To what extent should elementary education be supported by local taxation, and to what extent by State taxation? What should be the determining factors in the distribution of support?

What should be the primary and what the secondary purpose of high-school education? To what extent should courses of study in the high school be determined by the requirements for admission to college, and to what extent by the demands of industrial and civic life?

Should universities and colleges supported by public funds be controlled by independent and autonomous powers, or should they be controlled directly by central State authority?

To what extent is coeducation desirable in elementary schools, high schools, colleges, and universities?

To what extent is an exchange of students and professors between American Republics desirable? What is the most effective basis for a system of exchange? What plans should be adopted in order to secure mutual recognition of technical and professional degrees by American Republics?

To what extent may college courses in engineering be profitably supplemented by practical work in the shop? To what extent may laboratory work in engineering be replaced through cooperation with industrial plants?

What preparation should be required for admission to medical schools? What should be the minimum requirements for graduation? What portion of the faculty of a medical school should be required to give all their time to teaching and investigation? What instruction may best be given by physicians engaged in medical practice?

What preparation should be required for admission to State and National colleges of agriculture? To what extent should the courses of study in the agricultural college be theoretical and general, and to what extent practical and specific? To what extent should the curriculum of such a college be determined by local conditions?

What should be the place of industrial education in the school system of the American Republics? Should it be supported by public taxa-

tion? Should it be considered as a function of the public-school system? Should it be given in a separate system under separate control? How and to what extent may industrial schools cooperate with employers of labor?

How can a nation prepare in the most effective manner its young men for a business career that is to be pursued at home or in a foreign country?

(*a*) In schools that are a part of the public-school system.

(*b*) In schools of private endowment.

(*c*) In special business schools of private ownership.

Outline a course of study that will best prepare young men to engage in such a business career. Each suggested outline should consider not only the character of the educational system of the country for which the course of study is intended, but the desirability and practicability of a uniform course of business education for all Pan American countries.

SECTION V.

Desirability and practicability of establishing a uniform railroad gauge in Pan America, and especially in Central and South America.

SECTION VI.

Are there specific American problems of international law?

SECTION VII.

A. *Mining.*—The mining law of each country and the changes that may be made to aid the development of mineral resources. History of the mining industry in each country with reference to the beginnings of that industry. The development of the Patio process. Bibliography of mining.

B. *Metallurgy.*—Present methods of concentrating ores and the development of concentration methods. International relations in the exchange of ores and metals. Bibliography of metallurgy.

A. and B. *Mining and Metallurgy.*—Development of hydroelectric power for mining and metallurgy, the amount probably available, and specific benefits from its utilization.

C. *Economic Geology.*—The relation of geological work to the development of the country. A bibliography of economic geology.

D. *Applied Chemistry.*—Natural and artificial nitrates; the present status and the outlook for these industries.

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SECTION VIII.

Progress of vital statistics in Pan American countries.

Etiology and prevention of tuberculosis from a sociological standpoint.

SECTION IX.

The relation of central to local control in the regulation of public utilities.

Is it desirable and possible to establish uniform rates, methods, and classifications in port charges, customs regulations, and classifications between the North, Central, and South American Republics?

The relation of public finance to private credit in Latin America.

The problems of international exchange (monetary) and the means best adapted to establish direct exchange (monetary) between the countries of the American Continent.

Principles that should govern the relations between Federal, State, and local revenues.

APPENDIX III.

THE THREE PLENARY SESSIONS.

The First Plenary Session.

MEMORIAL CONTINENTAL HALL.

MONDAY, DECEMBER 27, 1915—10.30 A. M.

His Excellency the Chilean Ambassador to the United States, Sr. EDUARDO SUÁREZ MUJICA, presiding.

INTRODUCTORY REMARKS:
Hon. JOHN BARRETT, Secretary General.

ADDRESS:
The Vice President of the United States, Hon. THOMAS R. MARSHALL.

ADDRESS:
The Secretary of State of the United States, Hon. ROBERT LANSING.

ADDRESS:
The President of the Congress, His Excellency the Chilean Ambassador to the United States, Sr. EDUARDO SUÁREZ MUJICA.

RESPONSES BY THE CHAIRMEN OF THE OFFICIAL DELEGATIONS:
Mr. ERNESTO QUESADA, Argentina.
His Excellency the Minister of Bolivia, Sr. IGNACIO CALDERÓN, Bolivia.
His Excellency the Brazilian Ambassador, Sr. DOMICIO DA GAMA, Brazil.
Mr. JULIO PHILIPPI, Chile.
Mr. ROBERTO ANCÍZAR, Secretary of the Colombian Legation in the United States, Colombia.
Mr. EDUARDO J. PINTO, Costa Rica.
His Excellency the Cuban Minister, Sr. CARLOS MANUEL DE CÉSPEDES, Cuba.

His Excellency the Minister of the Dominican Republic, Sr. ARMANDO PÉREZ PERDOMO, The Dominican Republic.

His Excellency the Minister of Ecuador, Sr. GONZALO S. CÓRDOVA, Ecuador.

His Excellency the Minister of Guatemala, Sr. JOAQUÍN MÉNDEZ, Guatemala.

Mr. CHARLES MATHON, Haiti.

Mr. CARLOS ALBERTO UCLÉS, Honduras.

Mr. DÁMASO RIVAS, Nicaragua.

His Excellency the Minister of Panama, Sr. A. EUSEBIO MORALES, Panama.

Mr. A. EUSEBIO AYALA, Paraguay.

Mr. ISAAC ALZAMORA, Peru.

His Excellency the Minister of Salvador, Sr. RAFAEL ZALDÍVAR, El Salvador.

His Excellency the Minister of Uruguay, Sr. CARLOS M. DE PENA, Uruguay.

His Excellency the Minister of Venezuela, Sr. SANTOS A. DOMINICI, Venezuela.

The Second Plenary Session.

MEMORIAL CONTINENTAL HALL.

THURSDAY, JANUARY 6, 1916—9.30 P. M.

INTRODUCTORY REMARKS:

The President of the Congress, His Excellency the Chilean Ambassador to the United States, Sr. EDUARDO SUÁREZ MUJICA.

ADDRESS:

The President of the United States.

The Third Plenary Session.

MEMORIAL CONTINENTAL HALL.

SATURDAY MORNING, JANUARY 8, 1916—11 O'CLOCK.

His Excellency the Chilean Ambassador to the United States, Sr. EDUARDO SUÁREZ MUJICA, presiding.

READING OF THE FINAL ACT IN ENGLISH:

Mr. JAMES BROWN SCOTT, Chairman of the Subcommittee on the Final Act.

READING OF THE FINAL ACT IN SPANISH:

Mr. ERNESTO QUESADA, Chairman of the Subcommittee on Resolutions.

ADOPTION OF THE FINAL ACT:

PRESENTATION OF RESOLUTIONS:

Hon. GEORGE GRAY, Chairman United States Delegation, on behalf of the United States.

His Excellency the Minister of Venezuela, Sr. SANTOS A. DOMINICI, Chairman of the Venezuelan Delegation, on behalf of the visiting delegates.

ADDRESS:

The President of the Congress, His Excellency the Chilean Ambassador, Sr. EDUARDO SUÁREZ MUJICA.

ADJOURNMENT.

APPENDIX IV.

PROGRAM OF THE NINE SECTIONS OF THE CONGRESS.

SECTION I.--ANTHROPOLOGY.*

W. H. HOLMES, *Chairman.*
ALEŠ HRDLIČKA, *Secretary.*
ÁNGEL CÉSAR RIVAS, *Corresponding Secretary.*

Subsection 1.—Ethnology.
Subsection 2.—Archæology.
Subsection 3.—Physical Anthropology.

MONDAY, DECEMBER 27, 1915--2.30 P. M.

JUAN B. AMBROSETTI, *Chairman.*
Rev. JOHN M. COOPER, *Secretary.*

The Oldest Known Illustrations of South American Indians. (Illustrated with slides.)

Present State of our Knowledge of the South American Indians; with a Linguistic Map. (Illustrated with slides.) (Read by title.)

RUDOLPH SCHULLER.

An Inca Road and Several Hitherto Undescribed Ruins in the Urubamba Valley, Peru. (Illustrated with slides.)

Some Extraordinary Trepanned Skulls Found this Year in the Urubamba Valley, Peru. (Illustrated with slides.)

HIRAM BINGHAM, Assistant Professor of Latin-American History, Yale University.

* The program of Section I includes the papers of the Americanists and other associations meeting in joint session with this section.

The Amazon Expedition of the University Museum, Philadelphia. (Read by title.)
G. B. GORDON, Director of the Museum of the University of Pennsylvania.

Origin of the Indians of Central and South America.
J. A. CAPARÓ, Dean, Department of Electrical Engineering, University of Notre Dame, Indiana.

The Two Versions of the Growth of the Inca Empire. (Illustrated with slides.)
PHILIP AINSWORTH MEANS.

The Puma Motive in Ancient Peruvian Art. (Illustrated with slides.)
CHARLES W. MEAD, American Museum of Natural History.

Fuegian and Chonoan Relations.
Rev. JOHN M. COOPER, Instructor in Religion, Catholic University.

TUESDAY, DECEMBER 28, 1915—9.30 A. M.

Joint Session A.

NATIONAL MUSEUM, AUDITORIUM.

LUIS MONTANÉ, *Chairman.*

The Racial Elements in the Modern Population of America.
FRANZ BOAS, Professor of Anthropology, Columbia University.

The United States Census of Immigrant Stocks.
DANIEL FOLKMAR, Bureau of the Census.

Notes on the Sign Language of the Plains Indians.
Gen. HUGH L. SCOTT, United States Army.

Tribes of the Pacific Coast.
A. L. KROEBER, Associate Professor of Anthropology, University of California.

The Domain of the Aztecs.
A. M. TOZZER, Harvard University.

The Scandinavian Race in the Northern Middle States. (Read by title.)
ALBERT E. JENKS, Professor of Anthropology, University of Minnesota.

Tables of the Physical Growth of the Pupils of La Paz. (Read by title.)
GEORGES ROUMA, La Paz, Bolivia.

The Figures of the So-called Scarifiers of Northwest Argentina. (Illustrated with slides.)

JUAN B. AMBROSETTI, Director, Ethnological Museum, Faculty of Philosophy and Letters, Buenos Aires, Argentina.

Humanizing of the Science of Man. (Read by title.)

CHARLES F. LUMMIS, The Southwest Museum, Los Angeles, Cal.

A Study of Family Names in Chile. (Read by title.)

LUIS THAYER OJEDA.

Mongoloid Signs in some of the Ethnical Types of the Andine Plateau. (Read by title.)

ARTHUR POSNANSKY.

Chronological Relations of Coastal Algonkin Culture.

ALANSON SKINNER, American Museum of Natural History.

TUESDAY, DECEMBER 28, 1915—9.30 A. M.

Joint Session B.

NATIONAL MUSEUM, ROOM 42.

A. C. SIMOENS DA SILVA, *Chairman.*

Notes on Venezuelan Archaeology. (Read by title.)

LUIS R. ORAMAS.

Food Plants and Textiles of Ancient America. (Illustrated with slides.)

A Forgotten Food of Ancient America. (Illustrated with slides.)

WILLIAM E. SAFFORD, Economic Botanist, United States Department of Agriculture.

A New Type of Ruin Lately Excavated in the Mesa Verde National Park, Colorado. (Illustrated with slides.)

J. WALTER FEWKES, Ethnologist, Bureau of American Ethnology.

Archæological Work in Northern Nova Scotia. (Illustrated with slides.)

Remarkable Stone Sculptures from Yale, British Columbia. (Illustrated with slides.)

HARLAN I. SMITH, Geological Survey of Canada.

Notes on the Orientation of Certain Ancient Pueblos, Reservoirs, and Shrines in New Mexico. (Read by title.)

Notes on Shrines of the Tewa and other Pueblo Indians of New Mexico. (Read by title.)

WILLIAM BOONE DOUGLASS, Surveyor, United States General Land Office.

The Incas and their Culture. (Illustrated with slides.)
HIRAM BINGHAM, Assistant Professor of Latin American History, Yale University.

TUESDAY, DECEMBER 28, 1915—2 P. M.

Joint Session.

HENRY R. HOWLAND, *Chairman.*

Pedagogical Anthropology in the United States.
The European and the American Child.
PAUL R. RADOSAVLJEVICH, Assistant Professor of Experimental Pedagogy, New York University.

The Services of The Academy of Natural Sciences of Philadelphia to American Anthropology. (Read by title.)
S. G. DIXON, President, Academy of Natural Sciences, Philadelphia.

The Army Medical Museum in American Anthropology.
D. S. LAMB, United States Army Medical Museum.

Contributions of the National Geographic Society to American Anthropology. (Read by title.)
GILBERT H. GROSVENOR, Director and Editor, National Geographic Society, Washington, D. C.

Anthropology in the Museum of the Society of Natural Sciences, Buffalo, N. Y.
HENRY R. HOWLAND, Superintendent and Treasurer, Buffalo Society of Natural Sciences.

Anthropological Study of Old Americans (American Whites of three or more generations on each side).
ALEŠ HRDLIČKA, Curator, Division of Physical Anthropology, United States National Museum.

The Eye and Hair Color in Children of Old Americans.
BEATRICE L. STEVENSON.

Ceremonial and Other Practices on the Human Body among the Indians. (Illustrated with slides.)
WALTER HOUGH, Curator of Ethnology, United States National Museum.

One Aspect of Recent Evolution in Man.
PAUL POPENOE, Editor, Journal of Heredity, American Genetic Association, Washington.

Notes on Certain Prehistoric Habitations in Western Utah. (Illustrated with slides.)
NEIL M. JUDD, Aid in Ethnology, United States National Museum.

Aboriginal Culture of the San Juan Drainage.
A. V. KIDDER, Curator of North American Archæology, Peabody Museum of Harvard University.

Cayuga Ownership of New York Land.
GRACE ELLIS TAFT.

TUESDAY, DECEMBER 28, 1915—8 P. M.

Joint Session.

NATIONAL MUSEUM, AUDITORIUM.

F. W. HODGE, *Chairman.*

Pocomchi Notes. (Read by title.)
ADELA C. BRETON, F. R. A. I., London, England.

Recent Developments in the Study of Indian Music.
FRANCES DENSMORE, Special Investigator in Indian Music for the Bureau of American Ethnology.

Concepts of Nature among American Natives. (Read by title.)
ALICE C. FLETCHER, Holder of the Thaw Fellowship, Peabody Museum, Cambridge, Mass.

Pictures of the Eskimo Culture near Cape Farewell, South Greenland. (Illustrated with slides.) (Read by title.)
WILLIAM THALBITZER, Copenhagen, Denmark.

Comparative Study of Pawnee and Blackfoot Rituals. (Read by title.)
CLARK WISSLER, Curator of Anthropology, American Museum of Natural History.

The Beaver Indians.
PLINY EARLE GODDARD, Curator of Ethnology, American Museum of Natural History.

Omaha and Osage Traditions of Separation.
FRANCIS LA FLESCHE, Ethnologist, Bureau of American Ethnology.

Pathological Principles in Magic.
F. SCHLEITER.

WEDNESDAY, DECEMBER 29, 1915 9 A. M.

Joint Session.

NATIONAL MUSEUM, AUDITORIUM.

WILLIAM H. HOLMES, *Chairman.*

What the United States Government has done for Anthropology.
F. W. HODGE, Ethnologist in Charge, Bureau of American Ethnology.

The United States Government and the Indians. (Read by title.)
CATO SELLS, Commissioner of Indian Affairs.

The Genesis of the American Indian.
A. HRDLIČKA, Curator, Division of Physical Anthropology, United States National Museum.

The Passing of the Indian.
JAMES MOONEY, Ethnologist, Bureau of American Ethnology.

Inheritance of Stature.
CHARLES BENEDICT DAVENPORT, Director, Department of Experimental Evolution, Carnegie Institution of Washington, Cold Spring Harbor, N. Y.

The Precolumbian Indians of the Eastern Extremity of Cuba.
LUIS MONTANÉ, University of Habana, Cuba.

Jade in Brazil.
A. C. SIMOENS DA SILVA.

Cougar Motif in Peruvian Art.
JULIO TELLO.

Ethnographical Origins of Colombia.
CARLOS CUERVO MÁRQUEZ.

WEDNESDAY, DECEMBER 29, 1915—2 P. M.

Joint Session.

GEORGETOWN UNIVERSITY.

Rev. A. J. DONLON, S. J., *Chairman.*

Early Jesuit Missions in North America.
Rev. JOHN F. X. O'CONOR, S. J.

Early Pueblo Indian Missions in New Mexico.
BRADFORD PRINCE.

Le Verbe dans les Adjectives et les Adverbs Porteurs.
A. G. MORICE, O. M. I.

The Aleutian Language Compared with the Greenlandic. (Read by title.)
WILLIAM THALBITZER, Copenhagen, Denmark.

Ballads Surviving in the United States.
C. ALPHONSO SMITH, Poe Professor of English, University of Virginia.

Two Notes on Spanish Folklore. (Read by title.)
G. G. KING.

The League of the Iroquois.
J. N. B. HEWITT, Bureau of American Ethnology.

The Sacred Literature of the Cherokee.
JAMES MOONEY, Ethnologist, Bureau of American Ethnology.

Lexicology of the Names of the Indian God. (Read by title.)
J. A. CAPARÓ, Dean, Department of Electrical Engineering, University of Notre Dame, Indiana.

THURSDAY, DECEMBER 30, 1915—9.30 A. M.

Joint Session.

NATIONAL MUSEUM, AUDITORIUM.

PLINY EARLE GODDARD, *Chairman.*

Preliminary Remarks on the Skeletal Material Collected by the Jesup Expedition.
BRUNO OETTEKING, American Museum of Natural History.

Excavations on the Abbott Farm at Trenton, N. J. (Illustrated with slides.)
CLARK WISSLER, Curator of Anthropology, American Museum of Natural History, with C. A. REEDS and LESLIE SPIER.

Excavations of a Pre-Lenape Site in New Jersey.
E. W. HAWKES, Wistar Institute.

Prehistoric Sites in the State of Maine.
WARREN K. MOOREHEAD, Curator, Department of Archæology, Phillips Academy.

The Origin and Various Types of Mounds in Eastern United States. (Read by title.)
DAVID I. BUSHNELL, Jr., Bureau of American Ethnology.

Explorations of the Mounds and Caverns of Tennessee. (Illustrated with slides.)
W. E. MYER, President, Tennessee Academy of Science.

The Wesleyan University Collections of Antiquities from Tennessee. (Illustrated with slides.)

Some Mounds of Eastern Tennessee. (Illustrated with slides.)
GEORGE GRANT MACCURDY, Assistant Professor of Archæology and Curator of the Anthropological Collections, Yale University Museum.

Zuñi Conception and Pregnancy Beliefs.
ELSIE CLEWS PARSONS.

Recent Discoveries in the Region of the Tano Indians. (Illustrated with slides.)
N. C. NELSON.

Explorations in the Ozark Mountains of Missouri.
CHARLES PEABODY, Peabody Museum, Cambridge, Mass.

The Nacoochee Mound, White County, Ga. (Illustrated with slides.) (Read by title.)
GEORGE H. PEPPER, Museum of the American Indian, New York City.

Observations on Some Shell Mounds on the East Coast of Florida.
AMOS W. BUTLER, Secretary, Indiana Board of State Charities.

The Desirability of Uniform Laws Throughout the Pan American Countries for the Protection of Antiquities, the Systematic Promotion of Anthropological Research and the Collection and Scientific Treatment of Museum Material.

MAX UHLE.

American Archaeology in Modern Civilization.

PEDRO P. TRAVERSARI.

THURSDAY, DECEMBER 30, 1915—2 P. M.

Joint Session A.

NATIONAL MUSEUM, AUDITORIUM.

GEORGE L. BURR, *Chairman.*

The Social Revolution of the Eighteenth Century in South America.

BERNARD MOSES, University of California.

Notes on the Compilation of the Laws of Indias by Solorzano y Pinelo.

RAFAEL ALTAMIRA, Professor in the Diplomatic Institute, Madrid, Spain.

The Archives of the Indies: History of and Suggestion for their Exploitation. (Read by title.)

ROSCOE R. HILL, Associate Professor, Department of History, University of New Mexico.

Precolumbian Americana. (Read by title.)

PAUL BROCKETT, Assistant Librarian, Smithsonian Institution.

Le Vinland—Sa Localisation Probable.

ALPHONSE GAGNON, Secretary, Department of Public Works and Labor, Quebec Provincial Government.

Indications of Visits of White Men to America before Columbus. (Illustrated with slides.)

WILLIAM H. BABCOCK.

The Origin and Destruction of a National Indian Portrait Gallery.

F. W. HODGE, Ethnologist in Charge, Bureau of American Ethnology.

The Indians and their Culture as Described in the Swedish and Dutch Records of 1614 to 1664.

AMANDUS JOHNSON, Instructor in University of Pennsylvania.

Sources of Cuban Ecclesiastical History.
Rev. CHARLES W. CURRIER, Bishop of Hetalonia.

Oracles of the Saints. (Read by title.)
PHILLIPS BARRY.

Some Aspects of the Land as a Factor in Mexican History. (Read by title.)
LEON DOMINIAN.

THURSDAY, DECEMBER 30, 1915—2 P. M.

Joint Session B.

NATIONAL MUSEUM, ROOM 42.

ADELA C. BRETON, *Chairman.*

The Social Significance of the Creek Confederacy.
JOHN R. SWANTON, Ethnologist, Bureau of American Ethnology.

Terms of Relationship and the Levirate.
E. SAPIR, Geological Survey of Canada.

The Relationship Terms of the Crow and Hidatsa Indians.
ROBERT H. LOWIE, Assistant Curator, Department of Anthropology, American Museum of Natural History, New York City.

Sauk and Fox Notes.
TRUMAN MICHELSON, Ethnologist, Bureau of American Ethnology.

The Diffusion of Culture: A Critique. (Read by title.)
Totemic Complexes in North America. (Read by title.)
A. A. GOLDENWEISER, Instructor in Anthropology, Columbia University, New York City.

The Huron-Wyandot Clans.
The Growth of the Tsimshian Phratries.
C. M. BARBEAU, Geological Survey of Canada.

Herb Medicine Practices of the Northeastern Algonkins. (Read by title.)
FRANK G. SPECK, Assistant Professor of Anthropology, University of Pennsylvania.

The Culture of a Prehistoric Iroquois Site in Eastern Ontario.
W. J. WINTEMBERG, Geological Survey of Canada.

Distribution of Salish Dialects.
H. K. HAEBERLIN.

FRIDAY, DECEMBER 31, 1915—9.30 A. M.

Joint Session.

NATIONAL MUSEUM, AUDITORIUM.

WILLIAM H. HOLMES, *Chairman.*

The Place of Archæology in Human History. (Read by title.)
W. H. HOLMES, Head Curator, Department of Anthropology, United States National Museum; Curator, National Gallery of Art.

The Rise and Fall of the Maya Civilization in the Light of the Monuments and the Native Chronicles. (Illustrated with slides.)
SYLVANUS G. MORLEY, Carnegie Institution of Washington.

Recent Progress in the Study of Maya Art. (Illustrated with slides.)
HERBERT J. SPINDEN, American Museum of Natural History.

The Chilan Balam Books and the Possibility of their Translation.
ALFRED M. TOZZER, Assistant Professor of Anthropology, Harvard University.

Climatic Influences on the Southern Maya Civilization.
ELLSWORTH HUNTINGTON, Yale University.

Recent Excavations in Northern Yucatan. (Illustrated.)
EDWARD H. THOMPSON, Peabody Museum, Cambridge, Mass.

Excavations in the Department of Peten, Guatemala. (Illustrated with slides.)
RAYMOND E. MERWIN, Peabody Museum, Cambridge, Mass.

Archæological Studies in Northwestern Honduras.
MARSHALL H. SAVILLE, Professor of Archæology, Columbia University.

The North Building of the Great Ball Court, Chichen Itza, Yucatan. (Illustrated with slides.)
ADELA C. BRETON, F. R. A. I., London, England.

The Maya Zodiac of Santa Rita. (Illustrated with slides.)
STANSBURY HAGAR, Secretary, Department of Ethnology, Brooklyn Institute of Arts and Sciences.

New Methods in Ethnographic Photography.
FREDERICK I. MONSEN.

FRIDAY, DECEMBER 31, 1915—2 P. M.

Joint Session.

NATIONAL MUSEUM, AUDITORIUM.

The Hotun as the Principal Chronological Unit of the Old Maya Empire. (Illustrated with slides.)
SYLVANUS G. MORLEY, Carnegie Institution of Washington.

Indian Languages of Guatemala.
ADRIÁN RECINOS.

Eine Verzierte Baumcalebasse aus dem Sumo-Gebiet, Nicaragua. (Read by title.)
Dr. K. SAPPER.

The Discovery of the First Indian Graves of Cuba.
LUIS MONTANÉ, Professor of Anthropology, and Director of the Laboratory and Museum of Anthropology, University of Habana, Habana, Cuba.

Porto Rican Burial Caves. (Read by title.)
ROBERT T. AITKEN.

Incense Burners from a Cave near Orizaba. (Illustrated with slides.)
H. NEWELL WARDLE, Assistant, Department of Archæology, Academy of Natural Sciences, Philadelphia.

The Archæology and Physical Anthropology of Teneriffe.
E. A. HOOTON, Harvard University.

On the Origin and Distribution of Agriculture in America.
HERBERT J. SPINDEN, American Museum of Natural History.

The Ruins of Yucu-Tichyo. (Illustrated with slides.) (Read by title.)
CONSTANTINE G. RICKARDS, British Vice Consul, Oaxaca, Mexico.

Indian Ruins of Guatemala. (Read by title.)
FERNANDO CRUZ.

The Alaculoofs and Yaglans of Tierra del Fuego. (Illustrated with slides.)
CHARLES W. FURLONG.

MONDAY, JANUARY 3, 1916—1.30 P. M.

Dr. WILLIAM H. HOLMES, *Chairman.*

Notes on the Folklore of the Peruvian Indians.
FEDERICO ALFONSO PEZET, Envoy Extraordinary and Minister Plenipotentiary from Peru.

Early Graves of Nasco Valley.
JULIO C. TELLO.

The Mural Paintings of Ancient Yucatán. (Read by title.)
ADELE BRETON, London, England (National Hotel, City).

Trepanation of the Cranium and its Representation in the Pottery of Peru.
Artificial Deformation of the Cranium in Ancient Peru.
Variations in the Lambda of the Cranium of the Ancient Peruvians.
The Middle Cerebral Fossa in Ancient Peruvian Craniums.
CARLOS MORALES MACEDO.

The Permanent Teeth, with Especial Reference to American Children.
ROBERT BENNETT BEAN, Professor of Anatomy, School of Medicine, Tulane University, New Orleans, La.

Origin of Man. (Read by title.)
ANTENOR SOLÍS.

Something about the Linguistic of Bolivia. (Read by title.)
IGNACIO TERÁN.

A Study of the Mongolian Mancha Sacra in La Paz. (Read by title.)
NÉSTOR MORALES VILLAZÓN, Director of the National Institute of Bacteriology (Bolivia).

The Fossil Man of Cuba. (Read by title.)
LUIS MONTANÉ.

Study of the Prehistorical Man of the High Plateau of Bolivia. (Read by title.)
M. RIGOBERTO PAREDES.

The Races and Nationalities in America. (Read by title.)
JOSÉ INGENIEROS, Professor of Anthropology in the University of Buenos Aires.

On Certain Archæologic Studies. (Read by title.)
On the Predynastic Egyptian Boats on Painted Vases. (Read by title.)
A. CHILDE, Keeper of Archæology in the National Museum, Rio de Janeiro, Brazil.

The Indians of "Serra do Norte," Matto Grosso, Brazil. (Read by title.)
E. ROQUETTE PINTO, National Museum of Rio de Janeiro.

The Desirability of Uniform Laws Throughout the Pan American Countries for the Protection of Antiquities, the Systematic Promotion of Anthropological Research and the Collection and Scientific Treatment of Museum Material. (Read by title.)
SAMUEL LAÍNEZ.

The Desirability of Uniform Laws Throughout the Pan American Countries for the Protection of Antiquities, the Systematic Promotion of Anthropological Research and the Collection and Scientific Treatment of Museum Material. (Read by title.)
GEORGES ROUMA, Director General of Education of the Republic of Bolivia.

Physical Anthropology of the Primitive Tribes of South America. (Read by title.)
MARTÍN GUSINDE, Professor, Liceo Alemán, Santiago de Chile.

The Desirability of Uniform Laws Throughout the Pan American Countries for the Protection of Antiquities, the Systematic Promotion of Anthropological Research and the Collection and Scientific Treatment of Museum Material. (Read by title.)
ADRIÁN RECINOS.

TUESDAY, JANUARY 4, 1916—9.30 A. M.

NATIONAL MUSEUM, AUDITORIUM.

ERNESTO QUESADA, *Chairman.*

The Pukara Vases of Tilcara of the Pelike Type Compared with Those of Machu Pichu.
JUAN M. AMBROSETTI.

The Grindstones of the Primitive Inhabitants of Cabo Frío. (Illustrated with slides.)
A. C. SIMOENS DA SILVA.

The Teotihuacan Culture.
The Last Cultural Period of Azteca Type.
The Archaeological Chart.
Charts of Cultural Zones.
MANUEL GAMIO.

The Onas and Haush of Tierra del Fuego. (Illustrated with slides.)
CHARLES W. FURLONG.

The Racial Factor in Delinquency.
A Comparative Study of the Mentality of the American Negro.
THOMAS WILLIAMS.

The Desirability of Uniform Laws Throughout the Pan American Countries for the Protection of Antiquities, the Systematic Promotion of Anthropological Research, and the Collection and Scientific Treatment of Museum Material. (Read by title.)
ABRAHAM ÁLVAREZ S.

Archaeological Researches in Mexico. (Read by title.)
LUIS CASTILLO LEDÓN.

Present State of our Knowledge of the South American Indians, with a Linguistic Map. (Illustrated with slides.) (Read by title.)
RUDOLPH SCHULLER.

On the Relative Complexity of Male and Female Brains.
E. E. SOUTHARD, Director Psychopathic Department, Boston State Hospital.

Paleolithic Station of Talta. (Read by title.)
AURELIANO OYARZUN, Santiago de Chile.

The Pueblo Culture and its Relationships.
J. WALTER FEWKES, Ethnologist Bureau of American Ethnology.

SECTION II.—ASTRONOMY, METEOROLOGY, AND SEISMOLOGY.

ROBERT S. WOODWARD, *Chairman.*
ÁNGEL CÉSAR RIVAS, *Corresponding Secretary.*

Subsection A.—Astronomy and Geodesy.
Subsection B.—Meteorology and Seismology.

Subsection A.

FIRST SESSION, TUESDAY, DECEMBER 28, 1915—9.30 A. M.

ROBERT S. WOODWARD, *Chairman.*

Address of Welcome by ROBERT S. WOODWARD.

Astronomical Work in South America. S. I. BAILEY, Harvard College Observatory, Cambridge, Mass.

Status of Magnetic Surveys in South America. L. A. BAUER, Director, Department of Terrestrial Magnetism, Carnegie Institution of Washington, Washington, D. C.

Topographic Triangulation of the Right Margin of the Yaguaron and Yaguaron Chico Rivers and the Arroyo de la Mina. JULIO S. ROLETTI. (Read by SOLON I. BAILEY.)

Work of Observatory at La Plata, Argentina. W. J. HUSSEY, Director of Detroit Observatory, University of Michigan.

Subsection B.

FIRST SESSION, TUESDAY, DECEMBER 28, 1915—2.30 P. M.

CHARLES F. MARVIN, Chief of the United States Weather Bureau, *Chairman.*

The meeting was called to order by C. F. MARVIN, chairman of the subsection, who delivered an address of welcome.

The following papers were read:

Investigations on the Prediction of Barometric Variations. Rev. S. SARASOLA, S. J.

Discussion by Messrs. LURQUIN and FRANKENFIELD.

Origin and Course of West Indian Hurricane. J. C. MILLÁS.

Discussion by Messrs. SARASOLA and GUTIÉRREZ LANZA.

Thunderstorms. W. H. ALEXANDER. (Read by A. J. HENRY.)

Discussion by Messrs. CHURCH, CLAYTON, and PEABODY.

Agricultural Meteorology. J. WARREN SMITH.

Discussion by Messrs. CHURCH, FRANKENFIELD, and VOORHEES.

Subsection A.

SECOND SESSION, WEDNESDAY, DECEMBER 29, 1915—9.30 A. M.

ROBERT S. WOODWARD, President of the Carnegie Institution of Washington, *Chairman.*

The Electric Current. BAUTISTA LASGOYTI. (Read in abstract by ROBERT S. WOODWARD.)

Some Phenomena of Cryptochroism. GUSTAVO MICHAUD and J. FIDEL TRISTÁN. (Read in abstract by ROBERT S. WOODWARD.)

The Astrographic Catalogue, Zones 17° to 23°. ISMAEL GAJARDO REYES, Subdirector of the Observatory and Head of the Astrographic Department, Santiago, Chile. (Read by SOLON I. BAILEY.)

A Pan American Reform in the Calendar; Decimal, Perpetual, and Tropical. R. AGUILAR BATRES. (Read in abstract by ROBERT S. WOODWARD.)

Investigation of the Pivots of the 190 m. m. Meridian Circle of the Argentine National Observatory at Cordoba. C. D. PERRINE, Director of the National Observatory of Argentina, Córdoba. (Read by W. J. HUSSEY.)

Stability of the New Repsold Meridian Circle of the Cordoba Observatory. C. D. PERRINE. (Read by W. S. EICHELBERGER.)

Some Indications of Spiral Motion in our Stellar System. C. D. PERRINE. (Read by F. H. SEARES.)

Resolutions Presented to the Second Pan American Scientific Congress. SILVESTRE MATO, Chief of the Geographic-Military Service of the Republic of Uruguay. (Read by SOLON I. BAILEY.)

Resolutions of Geodetic Triangulations and Cadastral Surveys. NICOLÁS H. PIAGGIO. (Read by SOLON I. BAILEY.)

Subsection B.

SECOND SESSION, WEDNESDAY, DECEMBER 29, 1915—2.30 P. M.

CHARLES F. MARVIN, *Chairman.*

Climatic Control of Cropping Systems and Farm Operations. J. F. VOORHEES.
Discussion by Messrs. FASSIG and SMITH.

The Climate of Cuba. Rev. M. GUTIÉRREZ LANZA, S. J.
Discussion by J. C. MILLÁS.

The Pleionian Fluctuations of Climate. H. ARCTOWSKI.
Discussion by Messrs. HUNTINGTON, CLAYTON, HOBBS, and KULLMER.

The Ferrel Doctrine of Polar Calms and Its Disproof in Recent Observations. W. W. HOBBS.
Discussion by H. H. CLAYTON.

The Meteorological Influences of Lakes. (Read by title.)
E. R. MILLER.

The Position of Meteorology Among the Sciences. (Read by title.)
C. F. VON HERRMANN.

Subsection B.

THIRD SESSION, THURSDAY, DECEMBER 30, 1915—9.30 A. M.

C. F. MARVIN, *Chairman.*

Frequency, Amount, and Characteristics of Rainfall and Hailstorms at Villa Colon, Montevideo, from 1888 to 1914. (Read by title.)
LUIS MORANDI.

The Climate of Salt Lake City. A. H. THIESSEN.
Discussion by Messrs. FASSIG and WELLS.

The River Plate. (Read by title.)
HAMLET BAZZANO.

The Economic Aspects of Climatology. EDWARD L. WELLS.
Discussion by J. W. SMITH.

Sleet and Ice Storms in the United States. H. C. FRANKENFIELD.
Discussion by Messrs. HENRY, ARCTOWSKI, BROOKS, and BLAIR.

Forecasts of Weather Favorable to the Increase of Forest Fires. E. A. BEALS.
Discussion by Messrs. WELLS and HENRY.

Subsection A.

THIRD SESSION, FRIDAY, DECEMBER 31, 1915.

ROBERT S. WOODWARD, *Chairman.*

Determination of the Earth's Shape by Simultaneous Astronomical Observations in North and South America. ERNEST BROWN, Yale University.

Desirability and Practicability of Covering the South, Central, and North American Areas with a Network of Precise Triangulation. R. S. WOODWARD, Carnegie Institution of Washington.

Desirability and Practicability of Extending a Gravimetric Survey over the South, Central, and North American Areas. R. S. WOODWARD, Carnegie Institution of Washington.

Costs of Primary Triangulation, Including Determinations of Latitude, Longitude, and Azimuth. WILLIAM BOWIE, United States Coast and Geodetic Survey.

Work at Lick Observatory:
(*a*) *At Mount Hamilton, California.* (*b*) *In Chile, South America.* (Read by title.) W. W. CAMPBELL, Director of Lick Observatory.

Costs of Relative Gravity Determinations by Aid of Half-second Pendulums. WILLIAM BOWIE, United States Coast and Geodetic Survey.

Progress of the Work, Optical and Mechanical, on the 72-inch Reflecting Telescope for the Canadian Observatory at Vancouver. JOHN A. BRASHEAR.

Work of Mount Wilson Solar Observatory. F. H. SEARES, Carnegie Institution of Washington.

Subsection B.

FOURTH SESSION, FRIDAY, DECEMBER 31, 1915—2.30 P. M.

C. F. MARVIN, *Chairman.*

Monthly Storm Frequency in the United States. C. J. KULLMER.
Discussion by Messrs, HENRY, ARCTOWSKI, and HUNTINGTON.

The Thunderstorm of the United States as Climatic Phenomena. R. DEC. WARD.
Discussion by Messrs. COX and ARCTOWSKI.

Solar Activity, Cyclonic Storms, and Climatic Changes. ELLSWORTH HUNTINGTON.
Discussion by F. E. NIPHER.

The Influence of the Great Lakes upon the Movement of High and Low Pressure Areas. H. J. COX.
Discussion by Messrs. CHURCH, HENRY, and CLAYTON.

The Duration and Intensity of Tropical Rains. O. L. FASSIG.

Subsection B.

FIFTH SESSION, MONDAY, JANUARY 3, 1916—9.30 A. M.

CHARLES F. MARVIN, *Chairman.*

Climatic Fluctuations in Historic Times. Rev. ANTONIO GALÁN, S. J.
Discussion by Father GUTIÉRREZ LANZA.

Temperature Conditions at New Orleans, as Influenced by Subsurface Drainage. I. M. CLINE.
Discussion by Messrs. SMITH, COX, NIPHER, CLAYTON, FASSIG, and HUMPHREYS.

Snow Surveying—Its Problems and Their Solution. J. E. CHURCH.
Discussion by Messrs. THIESSEN and WELLS.

Introduction to the Study of the Solar Relations of Meteorology. (Read by title.) GERMÁN BARBATTO and PEDRO ESQUERRÉ.

The Callendar Sunshine Recorder. (Read by title.) A. E. DOUGLASS.

Measurements of the Intensity of Solar and Sky Radiation. H. H. KIMBALL.
Discussion by L. A. BAUER.

Atmospheric Electric Observations Aboard the "Carnegie." W. F. G. SWANN.
Discussion by Messrs. HUMPHREYS and BAUER.

Frost in the United States. WILLIAM GARDNER REED.
Discussion by Messrs. FASSIG, CLAYTON, and VOORHEES.

Some Results of Aerological Observations. W. R. BLAIR.

Subsection B.

SIXTH SESSION, WEDNESDAY, JANUARY 5, 1916—9.30 A. M.

CHARLES F. MARVIN, *Chairman.*

Fog Forecasting in the United States. (Read by title.) H. C. FRANKENFIELD.

River Service of the Weather Bureau. (Read by title.) A. J. HENRY.

The Principles Involved in Predicting High-Water Stages in "Flashy" Streams, with Special Reference to the Scheme for the Savannah River at Augusta, Ga. (Read by title.) E. D. EMIGH.

Forecasts of River Stages and Floods in the Ohio Valley—Their Importance to Commerce and in Conserving Life and Property. (Read by title.) W. C. DEVEREAUX.

The Principal Geophysical Bases of Modern Seismology. (Read by title.) SANTIAGO I. BARBARENA.

Organization of Macroseismological Observations in America. (Read by title.) Count de MONTESSUS DE BALLORE.

Wind Velocity and Elevation. W. J. HUMPHREYS.

The Collection of the Seismological Data in the United States. W. J. HUMPHREYS.

Discussion by T. A. JAGGAR.

Bolivian Meteorology. CONSTANT LURQUIN.

Discussion by Father SARASOLA.

First Steps of Venezuela in the Field of Meteorology. (Read by title.) LUIS UGUETO.

General Organization of the Services of the National Meteorological Bureau of Uruguay. (Read by title.) HAMLET BAZZANO.

Present Condition of Meteorology and Seismology in Honduras. LUIS LANDA.

Résumé of the Organization of the Meteorological Service of Chile. (Contributed by the Instituto Central Meteorológico y Geofísico de Chile. (Read by title.)

National Observatory of the Republic of Cuba. Brief sketch of the services established under the direction of this observatory. (Read by title.) LUIS G. Y CARBONELL.

The Argentine Meteorological Service. H. H. CLAYTON.

Discussion by Messrs. SMITH and TALMAN.

Contributions to Colombian Meteorology. (Read by title.) JORGE ÁLVAREZ HERAS.

The Organization of Meteorology and Seismology in the United States. C. F. MARVIN.

SECTION III.--CONSERVATION OF NATURAL RESOURCES.

GEORGE M. ROMMEL, *Chairman.*
EDWIN W. ALLEN, *Vice Chairman.*
RAYMOND A. PEARSON, *Secretary.*
C. W. SUTTON, *Corresponding Secretary.*

Subsection 1.--Conservation of Mineral Resources.
Subsection 2.--Conservation of Forests.
Subsection 3.—Conservation of Water for Power.
Subsection 4.--Irrigation.
Subsection 5.--Conservation of the Animal Industry.
Subsection 6.—Conservation of the Plant Industry.
Subsection 7.--Marketing and Distribution of Agricultural Products.

TUESDAY MORNING, DECEMBER 28, 1915—9.30 O'CLOCK.

RALEIGH HOTEL, OAK ROOM.

First General Session of Section III.--Conservation of Natural Resources.

GEORGE M. ROMMEL, *Chairman.*

Conservation and Economic Theory.
RICHARD T. ELY, University of Wisconsin.

The Economic Bearing of Future Trading in Agricultural Commodities.
HENRY C. EMERY, Yale University.

Conservation in Its Relation to Industrial Evolution.
R. H. HESS, University of Wisconsin.

TUESDAY AFTERNOON, DECEMBER 28, 1915—2.30 O'CLOCK.

RALEIGH HOTEL, OAK ROOM.

General Session of Section III—Continued.

DAVID FAIRCHILD, *Chairman.*

A Forest Policy for a Nation.
H. S. GRAVES, Chief, United States Forest Service.

The People's Interest in Water Power Resources.
GEORGE OTIS SMITH, Director, United States Geological Survey.

The Relation of Government to the Marketing Problem.
B. T. GALLOWAY, Dean, College of Agriculture, Cornell University.

TUESDAY NIGHT, DECEMBER 28, 1915—8.30 O'CLOCK.

PAN AMERICAN HALL.

Joint Session of Section III with Sections V and VII.

W. L. SAUNDERS, *Chairman.*

The Conservation of Human Energy.
T. N. CARVER, Harvard University.

The Functions of Foods in Securing National Efficiency.
H. W. WILEY.

Work of the U. S. Office of Public Buildings and Grounds.
Col. W. W. HARTS, Corps of Engineers, United States Army.

WEDNESDAY MORNING, DECEMBER 29, 1915—9.30 O'CLOCK.

Joint Session of Subsection 1, Section III, with Subsection 1, Section VII.

RALEIGH HOTEL, ENGLISH ROOM.

Methods and Cost of Obtaining Crude Petroleum.
THOMAS COX, Consulting Engineer, Oakland, Cal.

Legal and Economic Factors in the Conservation of Oil and Gas.
ROSWELL H. JOHNSON, University of Pittsburgh.

Extent, Mode of Occurrence, and Probable Yield of the Petroleum Fields of Argentina.
E. M. HERMITTE, Chief, Division of Mining and Geology, Buenos Aires, Argentina.

Joint Session of Subsection 3, Section III, with Subsections 3 and 4, Section V.

RALEIGH HOTEL, GREEN ROOM.

J. B. WHITEHEAD and N. C. GROVER, *Chairmen.*

State Regulation of Water Powers.
HALFORD ERICKSON, Chairman, Railroad Commission of Wisconsin.

Electrochemical Industries.
G. A. ROUSH, Professor, Lehigh University.

The Industrial Applications of Electricity.
PHILIP TORCHIO, New York, N. Y.

Present Status of Water-power Development.
H. W. BUCK, 49 Wall Street, New York, N. Y.

Laws Governing Running Water and Waterfalls.
G. CLODOMIRO PEREIRA DA SILVA, Technical Counselor, Ministry of Agriculture, State of Sao Paulo, Brazil.

Laws and Regulations Regarding the Use of Water for all Purposes.
ROME G. BROWN, 1006 Metropolitan Life Building, Minneapolis, Minn.

Session of Subsection 4.

RALEIGH HOTEL, ROOM 911.

Irrigation in the United States.
SAMUEL FORTIER, United States Office of Public Roads and Rural Engineering.

The Water Requirement of Plants as Influenced by Environment.
LYMAN J. BRIGGS and H. L. SHANTZ, United States Bureau of Plant Industry.

Relation between Quantity of Irrigation Water Used and Quantity of Crop Produced.
JOHN A. WIDTSOE, President, Agricultural College of Utah.

Adaptation of Methods of Applying Water to Soils.
S. T. HARDING, University of California.

WEDNESDAY AFTERNOON, DECEMBER 29, 1915—2.30 O'CLOCK.

Joint Session of Subsection 3, Section III, with Subsection 3, Section V.

RALEIGH HOTEL, OAK ROOM.

J. B. WHITEHEAD, *Chairman.*

The White Coal of Brazil and its Application.
LUIS BETIM PAES LEME, Director of the South American Fuel Co.

Hydroelectric Utilization at Niagara and Elsewhere.
MAURICE DEUTSCH, 50 Church Street, New York, N. Y.

Session of Subsection 4.

RALEIGH HOTEL, ENGLISH ROOM.

Irrigation Districts in the United States.
FRANK ADAMS, United States Office of Public Roads and Rural Engineering.

Uniformity of Distribution of Moisture in Soils.
P. E. FULLER, United States Office of Public Roads and Rural Engineering.

THURSDAY MORNING, DECEMBER 30, 1915—9.30 O'CLOCK

Joint Session of Subsection 1 with Subsection 3 of Section VII.

RALEIGH HOTEL, ENGLISH ROOM.

M. R. CAMPBELL, *Chairman.*

Petroleums and Asphalts in the United States.
E. W. SHAW, Geologist, United States Geological Survey, Washington, D. C.

Petroleum Resources of Ecuador.
C. D. ANDRADE, Ecuador.

Conservation of the Oil and Gas Resources of the Americas.
RALPH ARNOLD, Consulting Geologist and Engineer, Los Angeles, Cal.

The Petroleum Resources of Mexico.
D. T. DAY, Consulting Chemist, United States Bureau of Mines, Washington, D. C.

THURSDAY AFTERNOON, DECEMBER 30, 1915—2.30 O'CLOCK.

Joint Session of Subsection 1 with Subsection 1 of Section VII.

ROOM A, RALEIGH HOTEL.

The Copper Mining Industry in the Americas.
WALTER HARVEY WEED, Geologist and Mining Engineer, New York, N. Y.

Mining, Metallurgy, and Economic Geology.
LUIS FLEURY, San Salvador, Salvador.

The Conservation of Copper.
W. H. EMMONS, State Geologist of Minnesota, University of Minnesota.

The Conservation of Metals by the Recovery of Scrap or Used Metals.
J. P. DUNLOP, United States Geological Survey.

The Possibility of Treating by the Cyanide Process the Complex Silver or Silver-Gold Ores of the Latin American Republics.
G. H. CLEVENGER, Metallurgist, Palo Alto, Cal.

Cyaniding in South America.
H. A. MEGRAW, Editorial Staff, Engineering and Mining Journal, New York, N. Y.

Metallurgy of Native Silver Ores in Southwestern Chihuahua.
WALTER M. BRODIE, Mining Engineer and Metallurgist, The Batopilas Mining Company, New York, N. Y.

Concentration and Metallurgy at the San Antonio Mines.
MIGUEL CALLEJAS, Director of the Mining Society, San Antonio de Oriente, Honduras.

Concentration by Flotation.
F. G. FUCHS, Lima, Peru.

Joint Session of Subsection 4 with Subsection 4, Section V.

RALEIGH HOTEL, ANTEROOM.

M. O. LEIGHTON, *Chairman.*

Irrigation and Drainage.
F. H. NEWELL, University of Illinois.

Engineering Work of the United States Reclamation Service.
A. P. DAVIS, Director, United States Reclamation Service.

The Irrigation Work of the Indian Office.
W. M. REED, United States Indian Office.

Use of Irrigation Waters as Sources of Power.
GEORGE G. ANDERSON, Los Angeles, Cal.

Joint Session of Subsections 2, 5, and 7.

RALEIGH HOTEL, ENGLISH ROOM.

RAYMOND H. PEARSON, *Chairman.*

The Function of Live Stock in Agriculture.
GEORGE M. ROMMEL, United States Bureau of Animal Industry.

The Horse in Rural Industry and Recreation.
C. W. GAY, University of Pennsylvania.

The Relation Between Wool and Mutton Production in North and South American Sheep Industries.
F. R. MARSHALL, United States Bureau of Animal Industry.

Government Control of Grazing on the Public Lands.
A. F. POTTER, United States Forest Service.

Great Central Markets for Live Stock and Meats.
LOUIS D. HALL, United States Office of Markets and Rural Organization.

Truck Crop Marketing on a Large Scale Under Cooperative Principles.
N. P. WESCOTT, Onley, Va.

FRIDAY MORNING, DECEMBER 31, 1915—9.30 O'CLOCK.

Joint Session of Subsections 2, 4, 5, and 6, with Subsection 8 of Section IV.

RALEIGH HOTEL, OAK ROOM.

A. C. TRUE, *Chairman.*

Phylotechnic Studies and Agricultural Experiments in "La Estanzuela," Uruguay.
ALBERTO BOERGER, Director of the Experiment Station "La Estanzuela," Uruguay.

The Progress of Agricultural Science in Cuba.
J. T. CRAWLEY, Director, Cuban Agricultural Experiment Station.

Extension Education.
KENYON L. BUTTERFIELD, President, Massachusetts Agricultural College.

The Interdependence of Forest Conservation and Forestry Education.
J. W. TOUMEY, Yale University.

Session of Subsection 7.

RALEIGH HOTEL, ENGLISH ROOM.

FAIRFAX HARRISON, President, Southern Railway, *Chairman.*

The Advisability of Collegiate Courses on Marketing and Distribution.
T. N. CARVER, Harvard University.

Improved Transportation Service for Perishable Products.
G. C. WHITE, United States Office of Markets and Rural Organization.

Carlot Distribution.
J. S. CRUTCHFIELD, Pittsburgh, Pa.

Trading in Grain Futures.
L. D. H. WELD, Yale University.

Transportation of Perishable Commodities—Need of Cooperation by Shippers with Carriers.
EUGENE F. MCPIKE, Chicago, Ill.

Opportunities Afforded the Railroads of the United States for Profitable Agricultural Development Work.
T. F. POWELL, United States Office of Markets and Rural Organization.

The Extent and Possibilities of Cooperation.
C. E. BASSETT, United States Office of Markets and Rural Organization.

FRIDAY AFTERNOON, DECEMBER 31, 1915—2.30 O'CLOCK.

Joint Session of Subsections 4, 5, and 7.

RALEIGH HOTEL, OAK ROOM.

C. S. SCOFIELD, *Chairman.*

The Poultry Industry—Its Importance in Agricultural Development.
HARRY M. LAMON, United States Bureau of Animal Industry.

What Should be Done for the Settler.
I. D. O'DONNELL, United States Reclamation Service.

Uniform Grades and Standard Packages.
C. T. MORE, United States Office of Markets and Rural Organization.

Standardization of Vegetables.
S. J. COOK, Silver Creek, N. Y.

Joint Session of Subsection 1, Section III, with Subsection 1, Section VII.

RALEIGH HOTEL, SMALL BANQUET ROOM.

JAMES F. CALLBREATH, *Chairman.*

Mine Accidents and Uniform Records.
ALBERT H. FAY, Mining Engineer, United States Bureau of Mines.

Uniformity in Collection of Statistics of Mineral Production.
EDWARD W. PARKER, Director of the Anthracite Bureau of Information, Wilkes-Barre, Pa.

Improved Mining and Metallurgical Methods as an Aid to Conservation.
L. D. RICKETTS, Mining and Metallurgical Engineer, New York, N. Y.

MONDAY MORNING, JANUARY 3, 1916—9 O'CLOCK.

General Session of Section III.

RALEIGH HOTEL, OAK ROOM.

HENRY S. GRAVES, *Chairman.*

A Contribution to the Botany of the Forest Region of Southern Patagonia.
CRISTÓBAL HICKEN, Professor of Botany, University of Buenos Aires, Argentina.

South American Forest Resources and Their Relation to the World's Timber Supply.
RAPHAEL ZON, United States Forest Service.

The Lesson of Forestry in the Philippine Islands.
Maj. GEORGE P. AHERN, Washington, D. C.

MONDAY AFTERNOON, JANUARY 3, 1916—2.30 O'CLOCK.

General Session of Section III—Continued.

RALEIGH HOTEL, OAK ROOM.

GEORGE M. ROMMEL, *Chairman.*

The Resources of Brazil.
CLINTON D. SMITH, Río de Janeiro, Brazil.

Plant Introduction Opportunities Open to All the Americas.
DAVID FAIRCHILD, United States Bureau of Plant Industry.

How an Animal Grows.
H. J. WATERS, President, Kansas State Agricultural College.

Securing Settlers for Private Irrigation Projects.
H. G. SHEDD, Omaha, Nebr.

Securing Settlers for Government Projects.
C. J. BLANCHARD, Statistician, United States Reclamation Service.

TUESDAY MORNING, JANUARY 4, 1916—9.30 O'CLOCK.

Joint Session of Subsections 1 and 3.

RALEIGH HOTEL, OAK ROOM.

N. C. GROVER, *Chairman.*

Government Control of Minerals on Public Lands.
T. P. CALLBREATH, Washington, D. C.

Valuation of Federal Coal Lands.
R. D. HALL, New York, N. Y.

The Valuation of Water Powers.
W. J. HAGENAH, Chicago, Ill.

Joint Session of Subsections 5 and 6.

RALEIGH HOTEL, SMALL BANQUET ROOM.

DAVID FAIRCHILD, *Chairman.*

Cattle Raising and the Meat Industry in Southern Brazil.
REYNALDO PORCHAT, Sao Paulo, Brazil.

Something About the Locust (Schitocerca Americana) and the Necessity of an International Convention to Promote its Destruction.
JUAN J. RODRÍGUEZ LUNA, Guatemala, Central America.

Possibilities of Intensive Agriculture in Tropical America.
O. F. COOK, United States Bureau of Plant Industry.

The Animal Organisms of the Soil; a New View of Soil Fertility.
N. A. COBB, United States Bureau of Plant Industry.

The Rôle of the Dairy Industry in a System of National Agricultural Development.
B. H. RAWL, United States Bureau of Animal Industry.

The Swine Industry—Its Importance in Agricultural Development.
DEWITT C. WING, Chicago, Ill.

Tropical Varieties of Maize.
G. N. COLLINS, United States Bureau of Plant Industry.

The Institute of Tropical Agriculture on the Pacific Coast.
H. J. WEBBER, Riverside, Cal.

Session of Subsection 7.

RALEIGH HOTEL, ANTEROOM.

CHARLES J. BRAND, *Chairman.*

The Marketing of Farm Mortgage Loans.
C. W. THOMPSON, United States Office of Markets and Rural Organization.

Financing Cooperative Marketing Associations.
W. H. KERR, United States Office of Markets and Rural Organization.

Modern Retail Merchandising.
CHARLES G. PARLIN, Boston, Mass.

The Development of a Market News Service.
W. A. SHERMAN, United States Office of Markets and Rural Organization.

A Practical Market System for Our Large Cities.
G. V. BRANCH, United States Office of Markets and Rural Organization.

Developing Foreign Markets for Apples.
C. W. MOOMAW, United States Office of Markets and Rural Organization.

The Principles and Practices of Cooperation Applied to Citrus Production and Distribution.
G. HAROLD POWELL, Los Angeles, Cal.

TUESDAY AFTERNOON, JANUARY 4, 1916—2.30 O'CLOCK.

Joint Session of Subsection 1 with Subsections 1 and 3 of Section VII.

RALEIGH HOTEL, OAK ROOM.

M. R. CAMPBELL, *Chairman.*

The Conservation of the Phosphate Rock of the United States.
W. C. PHALEN, United States Geological Survey.

Conservation of Iron Ore.
C. K. LEITH, University of Wisconsin.

Fuel Situation in the Andean Plateau.
BENJAMIN L. MILLER, Professor of Geology, Lehigh University, and JOSEPH T. SINGEWALD, Jr., Associate, Economic Geology, Johns Hopkins University.

Practical Difficulties of Conserving our Fuel Supply.
J. S. BURROWS, Norfolk, Va.

The Saving of Coal Through the Employment of Better Mining Methods.
FRANK HAAS, Fairmont, W. Va.

Joint Session of Subsections 5 and 6.

RALEIGH HOTEL, SMALL BANQUET ROOM.

B. H. RAWL, *Chairman.*

A Catalogue of the Fish Pertaining to the Fauna of Guatemala.
JUAN J. RODRÍGUEZ LUNA, Guatemala, Central America.

The Conservation of Industrial Plants.
RAFAEL PIÑOL BATRES, Guatemala, Central America.

The Manganese in the Arable Stratum of Uruguay.
J. MAIMO SARRASÍN, Montevideo, Uruguay.

The Prevention and Eradication of Destructive Animal Diseases and the Effect upon Agriculture and the Meat Supply.
A. R. WARD, United States Bureau of Animal Industry.

Recent Progress in the Development of Methods for the Control and Treatment of Parasites of Live Stock.
B. H. RANSOM, United States Bureau of Animal Industry.

Session of Subsection 7.

RALEIGH HOTEL, ANTEROOM.

CHARLES J. BRAND, *Chairman.*

Municipal Terminal Markets.
CYRUS C. MILLER, New York, N. Y.

The Economic Trend in Wholesale Methods of Fruit Distribution.
ARTHUR R. RULE, New York, N. Y.

The Influence of Supply on Prices.
A. U. CHANEY, New York, N. Y.

The Economic Value of the Auction as a Distributer of Perishable Commodities.
V. K. MCELHENEY, New York, N. Y.

Organization by Consumers.
HERBERT A. SMITH, Washington, D. C.

WEDNESDAY MORNING, JANUARY 5, 1916—9.30 O'CLOCK.

Joint Session of Subsections 1 and 3 for Discussions of Pan American Topics.

RALEIGH HOTEL, GREEN ROOM.

M. R. CAMPBELL, *Chairman.*

The Federal Government and the Nation's Mineral Resources.
W. C. MENDENHALL, United States Geological Survey.

Principles of a Federal Water Power Policy for the Public Lands of the United States.
O. C. MERRILL, Chief Engineer, United States Forest Service.

Coordination in the Development of Our Water Power Resources with Other Uses of Water.

The Water Power Resources of the United States.
M. O. LEIGHTON, Washington, D. C.

Session of Subsection 2, to discuss Pan American Topics.

ROOM 706, FOREST SERVICE BUILDING.

H. S. GRAVES, *Chairman.*

The Attitude of the Government in the Matter of National Forests; Relation of Forest Culture to the Future Development of Central and South America.
ELÍAS LEIVA QUIRÓS, School of Law of Costa Rica.

The Conservation of the Natural Sources of Wealth; Agriculture, Irrigation, and Forest Culture.
RAÚL BRIN, Secretary, Agricultural Experiment Station, Panama.

The Attitude of the Government in the Matter of National Forests.
HORACIO ECHEGOYEN, Santiago, Chile.

"El Tambu" and the Destruction of the "Tacuaras" of Paraguay
A. WINKELRIED BERTONI, Asunción, Paraguay.

Forest Problems and Economic Development in South America.
RAPHAEL ZON, United States Forest Service.

Scientific Forestry for Latin America.
BARRINGTON MOORE, New York, N. Y.

Results of the First Year's Work of the National Commission of the Argentine Flora.

CRISTÓBAL HICKEN, Buenos Aires, Argentina.

Session of Subsection 4 to Discuss Pan American Topics.

RALEIGH HOTEL, ANTEROOM.

S. FORTIER, *Chairman.*

State Aid to Irrigation and Swamp Land Reclamation Projects.

C. E. GRUNSKY, San Francisco, Cal.

Public Control of Irrigation in the United States.

R. P. TEELE, United States Office of Public Roads and Rural Engineering.

Irrigation and Public Policy in Peru.

C. W. SUTTON, Civil Engineer, New York, N. Y.

The Doctrine of Riparian Rights in the Western United States.

A. E. CHANDLER, San Francisco, Cal.

Session of Subsection 6 to Discuss Pan American Topics.

RALEIGH HOTEL, PRIVATE DINING ROOM.

GEORGE M. ROMMEL, *Chairman.*

Pan American Cooperation in the Quarantine of Plants.

ROBERTO SUNDBERG, Director de "La Defensa Agrícola," Montevideo, Uruguay.

New Parasites of the Schitocerca Peregrina.

CARLOS NOCEDO, Guatemala.

Cooperation Between the Pan American Countries in the Matter of Plant Quarantine Service.

JOHN R. JOHNSTON, Agricultural Experiment Station, Santiago de las Vegas, Cuba.

The Great Need for the Establishment of Competent Bureaus for the Study of Injurious Insects in all American Countries.

L. O. HOWARD, Chief, United States Bureau of Entomology.

Pan American Cooperation in Plant Quarantine.

C. L. MARLATT, Chairman, United States Federal Horticultural Board.

Session of Subsection 7 to Discuss Pan American Topics.

RALEIGH HOTEL, ROOM 934.

CHARLES J. BRAND, *Chairman.*

The Effect of the Opening of the Panama Canal upon the Traffic in Agricultural Products.

EDUARDO CARRASCO B., New York City.

The Effective Use of the Panama Canal in the Distribution of Products.

CHARLES J. BRAND, Chief, United States Office of Markets and Rural Organization.

THURSDAY MORNING, JANUARY 6, 1916—9.30 O'CLOCK.

Session of Subsection 5 to Discuss Pan American Topics.

ROOM 225, BUREAU OF ANIMAL INDUSTRY.

GEORGE M. ROMMEL, *Chairman.*

American International Convention of Sanitary Police.

JOSÉ LEÓN SUÁREZ, Professor of the National University of Buenos Aires; chief of the General Division of Live Stock, Department of Agriculture of the Argentine Republic, Buenos Aires.

Are Uniform Regulations Feasible Among the Different American Countries for the Prevention of the Introduction and Dissemination of the Diseases of Different Animals?

FRANCISCO ETCHEGOYEN, Habana, Cuba.

RAFAEL MUÑOZ XIMÉNEZ, Montevideo, Uruguay.

JULIO BESNARD, Chief of the Live Stock Sanitary Service, Ministry of Industry and Public Works, Chile. Paper read by TEODORO MUHM, Delegate from Chile.

A. D. MELVIN, Chief, United States Bureau of Animal Industry.

SECTION IV.—EDUCATION.

P. P. CLAXTON, *Chairman.*
S. P. CAPEN, *Vice Chairman.*
GUILLERMO A. SHERWELL, *Corresponding Secretary.*

Subsection 1.—Elementary Education.
Subsection 2.—Secondary Education.
Subsection 3.—University Education.
Subsection 4.—Education of Women.
Subsection 5.—Exchange of Professors and Students.
Subsection 6.—Engineering Education.
Subsection 7.—Medical Education.
Subsection 8.—Agricultural Education.
Subsection 9.—Industrial Education.
Subsection 10.—Commercial Education.

TUESDAY MORNING, DECEMBER 28, 1915—9.30 O'CLOCK.

First General Session of Section IV.—Education.

PAN AMERICAN UNION.

P. P. CLAXTON, *Chairman.*

Address by His Excellency CARLOS MARÍA DE PENA, Minister of Uruguay.

A New Organization of Universities According to Scientific Philosophy.
JOSÉ INGENIEROS, Professor, University of Buenos Aires, Argentine Republic.

The Changes Needed in American Secondary Education.
CHARLES W. ELIOT, President Emeritus, Harvard University, Cambridge, Mass.

TUESDAY AFTERNOON, DECEMBER 28, 1915—2.30 O'CLOCK.

Joint Session of Section IV and Section IX, with Program Furnished by Subsection on Commercial Education of Section IV and Subsection on Commerce of Section IX.

PAN AMERICAN UNION.

ANTONIO RAMÍREZ FONTECHA, *Chairman.*

INTRODUCTORY REMARKS.

Hon. WILLIAM C. REDFIELD, Secretary of Commerce, Washington, D. C.

Hon. ANDREW J. PETERS, Assistant Secretary of the Treasury, Washington, D. C.

JOHN H. FAHEY, former President, United States Chamber of Commerce, Boston, Mass.

EDMUND J. JAMES, President, University of Illinois, Urbana, Ill.

GENERAL TOPIC.

Preparation for Trade, Domestic and Foreign.

From the Standpoint of the Educator.

EDWIN F. GAY, Dean Graduate School of Business Administration, Harvard University, Cambridge, Mass.

WEDNESDAY MORNING, DECEMBER 29, 1915—9.30 O'CLOCK.

Session of Subsection 7.—Medical Education.

GEORGE WASHINGTON UNIVERSITY, 2023 G STREET NW.

W. C. BORDEN, *Chairman.*

Pan American Topic.

DÁMASO RIVAS, University of Pennsylvania, Philadelphia, Pa.

The Premedical Education in Biology.

PAUL BARTSCH, National Museum, Washington, D. C.

Medical Education in the United States.

JOHN M. BALDY, Philadelphia.

BUCKNER MAGILL RANDOLPH, Professor of Therapeutics, Washington, D. C.

Joint Session of Subsections 8 and 9.

GEORGE WASHINGTON UNIVERSITY, 2023 G STREET NW.

W. T. BAWDEN, *Chairman.*

Education for the Baccalaureate Degree as Administered in Agricultural Colleges.

ALFRED CHARLES TRUE, Director, Office of Experiment Stations, Department of Agriculture, Washington, D. C.

Training Girls and Women for Trades and Industries.

MARY SCHENCK WOOLMAN, Chairman Committee of Women's Works, National Society for the Promotion of Industrial Education, New York, N. Y.

Session of Subsection 10.—Commercial Education.

PAN AMERICAN UNION.

S. P. CAPEN, *Chairman.*

Is there a Profession of Business, and Can We Really Train for It?

ELLIOT H. GOODWIN, Secretary, United States Chamber of Commerce, Washington, D. C.

The Proper Use of Business Experts from the Business World in Class Instruction on Domestic and Foreign Commerce (Symposium).

B. OLNEY HOUGH, Editor, American Exporter, New York, N. Y.

J. F. CROWELL, Chamber of Commerce, New York, N. Y.

ROGER W. BABSON, President, Babson's Statistical Bureau, Wellesley Hills, Mass.

Remarks by Edward L. WERTHEIM, Young Men's Christian Association, West Side Branch, New York City, N. Y.

WEDNESDAY AFTERNOON, DECEMBER 29, 1915—2.30 O'CLOCK.

Session of Subsection 1.—Elementary Education.

GEORGE WASHINGTON UNIVERSITY, 2023 G STREET NW.

ERNEST C. MOORE, *Chairman.*

How May the School be Made an Effective Health Agency.

THOMAS D. WOOD, Columbia University, New York, N. Y.

Between What Ages Should Attendance at Elementary Schools be Made Compulsory? How Can a Compulsory Attendance Law for Elementary Education be Made Effective?

EDUARDO ROGÉ, Uruguay. (Read by W. CARSON RYAN.)

Education of the City Child.

ERNEST CARROLL MOORE, Harvard University, Cambridge, Mass.

Session of Subsection 3.—University Education.

GEORGE WASHINGTON UNIVERSITY, 2023 G STREET NW.

EDMUND J. JAMES, *Chairman.*

Function of Graduate Schools in the Universities of the United States.

WILLIAM HENRY CARPENTER, Columbia University, New York, N. Y.

ALBION W. SMALL, Dean, University of Chicago, Chicago, Ill.

Session of Subsection 9.—Industrial Education.

GEORGE WASHINGTON UNIVERSITY, 2023 G STREET NW.

W. T. BAWDEN, *Chairman.*

Cooperation between Public Schools and Organizations of Employers and Employees in Making and Executing Plans for Industrial Education.

ARTHUR WILLIAMS, New York Edison Company, New York, N. Y. (Read by F. C. HENDERSCHOTT.)

Corporation Schools.

F. C. HENDERSCHOTT, Executive Secretary National Association of Corporation Schools, New York, N. Y.

Why Should an Industrial Corporation Undertake Educational Work on Behalf of its Employees?

ELMER H. FISH, Supervisor of Educational Department, The Norton Company, Worcester, Mass.

Session of Subsection 10.—Commercial Education.

PAN AMERICAN UNION.

ROGER W. BABSON, *Chairman.*

Commercial Education:

In Latin America—

EDGAR E. BRANDON, Dean Miami University, Oxford, Ohio.

In Germany—

FREDERICK ERNEST FARRINGTON, Associate Professor of Education, Teachers' College, Columbia University, New York, N. Y.

In England—

I. L. KANDEL, Carnegie Foundation for the Advancement of Teaching, New York, N. Y.

THURSDAY MORNING, DECEMBER 30, 1915—9.30 O'CLOCK.

Session of Subsections 1, 2, 8, and 9.

GEORGE WASHINGTON UNIVERSITY, 2023 G STREET NW.

ELMER E. BROWN, *Chairman.*

His Excellency CARLOS M. DE PENA, *Honorary Chairman.*

Historical Development of our Secondary Schools.

ELMER E. BROWN.

Essentials of an Effective Compulsory Attendance Law.

BEN BLEWETT, Superintendent of Schools, St. Louis, Mo., in collaboration with Mr. JOHN B. QUINN, Board of Education, St. Louis, Mo.

Should Public Vocational Training of High School Grade be Organized as a Course or Courses in the Regular High School, or in a Separate School Established Primarily for Vocational Training?

EDWIN G. COOLEY, Educator, Union League Club, Chicago, Ill.

The Need of Industrial Education in an Industrial Democracy.

JOHN DEWEY, Columbia University, New York, N. Y.

A National System of Agricultural Education.

H. J. WATERS, President Kansas Agricultural College, Manhattan, Kans.

Influence of Extension Work on Southern Farm Practice.

A. M. SOULE, President State College of Agriculture, Athens, Ga.

Session of Subsection 7.—Medical Education.

GEORGE WASHINGTON UNIVERSITY, 2023 G STREET NW.

W. C. BORDEN, *Chairman.*

The Development of Entrance Requirements in Medical Education and the Effect of this Development on Attendance in Medical Colleges in the United States.

DANIEL ATKINSON KING STEELE, Senior Dean, College of Medicine, University of Illinois, Chicago, Ill. (Read by Dr. BROWN.)

The Amount of Knowledge of Biological Science Essential for the Student Entering Medical School.

F. C. WAITE, Western Reserve University, Cleveland, Ohio.

Who is a Medical Practitioner?

HARLAN H. HORNER, Chief, Division of Examinations, Department of Education, Albany, N. Y.

Session of Subsection 10.—Commercial Education.

PAN AMERICAN UNION.

ROGER W. BABSON, *Chairman.*

The Arguments for a Separate or Combined Course of Commercial Study.

ROSWELL C. MCCREA, Dean The Wharton School, University of Pennsylvania, Philadelphia, Pa.

What Can the Small College Do in Training for Business?

GEORGE W. HOKE, Miami University, Oxford, Ohio.

How to Procure Adequately Prepared Instructors for Colleges and Universities.

JAMES C. EGBERT, Columbia University, New York, N. Y.

Preparation for a Business Career in Chile. Latin American Standpoint on Business Education.

FRANCISCO ARAYA BENNETT, Attorney at Law and State Professor, Principal, Commercial Institute, Valparaiso; University Professor of Political Economy, Chile. (Abstract read by R. W. BABSON.)

THURSDAY AFTERNOON, DECEMBER 30, 1915—2.30 O'CLOCK.

Joint Session of Subsections 1, 2, 3, 8, and 9.

GEORGE WASHINGTON UNIVERSITY, 2023 G STREET NW.

EDMUND J. JAMES, *Chairman.*

Agricultural Education.

JOSÉ COMALLONGA Y MENA, University of Habana, Habana, Cuba.

Intermediate Instruction.

J. ALBERTO GÁMEZ, Nicaragua.

Education in Trades and Industries.

L. D. HARVEY, President Stout Institute, Menominee, Wis.

Session of Subsection 6.—Engineering Education.

GEORGE WASHINGTON UNIVERSITY, 2023 G STREET NW.

GARDNER C. ANTHONY, *Chairman.*

Extent to Which Practicing Engineers May Take Part in Engineering Teaching.

H. V. NORRIS, Wilkes-Barre, Pa.

Opportunities and Problems Confronting the Engineer in South America.

ELMER L. CORTHELL, New York, N. Y.

The Relative Importance of General Training in Engineering Branches to Extreme Specialization.

WILLIAM H. BURR, Columbia University, New York, N. Y.

The Study of Engineering Education by the Joint Committee of the National Engineering Societies.

CHARLES R. MANN, Carnegie Foundation for the Advancement of Teaching, New York, N. Y.

Session of Subsection 10.—Commercial Education.

PAN AMERICAN UNION.

ROGER W. BABSON, *Chairman.*

The Problem of Commercial Education in:

(*a*) *Elementary Schools.*

(*b*) *Secondary Schools.*

(*c*) *Colleges.*

(*a and b*) *Elementary and Secondary Schools—Foundation, Subjects, Articulation, Correlation, and Methods.*

(*a*) F. G. NICHOLS, Department of Education, State of New York, Rochester, N. Y.

RICHARD E. DODGE, Teachers' College, Columbia University, New York, N. Y.

(*b*) PAUL MUNROE, Teachers' College, Columbia University, New York, N. Y.

DAVID SNEDDEN, Commissioner of Education of Massachusetts, Boston, Mass.

(*c*) *Colleges—Entrance Requirements.*

DAVID KINLEY, University of Illinois, Urbana, Ill.

W. F. GEPHART, Washington University, St. Louis, Mo.

FRIDAY MORNING, DECEMBER 31, 1915—10.30 O'CLOCK.

Session of Subsection 4.—Education of Women.

MEMORIAL CONTINENTAL HALL.

SARAH LOUISE ARNOLD, *Chairman.*

Well-being of Children as Determined by the Education of Women.

HELEN PUTNAM, Providence, R. I.

Final Aim of the Education of Women.

EDUARDO MONTEVERDE, National University, Montevideo, Uruguay.

(Read by J. D. FITZGERALD.)

The Education of Women as Measured in Civic and Social Relations.

SUSAN M. KINGSBURY, Bryn Mawr College, Bryn Mawr, Pa.

The Education of Women as Related to the Welfare of Children.

JULIA LATHROP, The Children's Bureau, Washington, D. C.

The Education of Women as Measured in Civic and Social Relations.

SOPHONISBA P. BRECKINRIDGE, University of Chicago, Chicago, Ill.

FRIDAY MORNING, DECEMBER 31, 1915—9.30 O'CLOCK.

Joint Session of Subsection 6 (Engineering Education) and Sections V (Engineering and VII (Mining and Metallurgy).

RALEIGH HOTEL, FIRST FLOOR, PRIVATE DINING ROOM.

GARDNER C. ANTHONY, *Chairman.*

Engineering Nomenclature. (Topic referred to this Congress by its predecessor.)
ALBERTO SMITH.

What is Engineering Education Contributing toward Scientific Progress and Invention?
WALTER RAUTENSTRAUCH, Columbia University, New York, N. Y.

Engineering Education in the United States.
CHARLES D. HOWE, President, School of Applied Science, Cleveland, Ohio.

The Influence of Technical Journals upon Engineering Education.
T. A. RICKARD, Editor, Mining and Scientific Press, San Francisco, Cal.
THOMAS J. READ, New York, N. Y.

The United States Bureau of Mines.
VAN. H. MANNING, Director, Bureau of Mines.

What is Engineering Education Contributing toward Scientific Progress and Invention?
VLADIMIR KARAPETOFF, Cornell University, Ithaca, N. Y.

Significance of Engineering Degrees in the United States.
WILLIAM T. MAGRUDER, Columbus, Ohio.

Joint Session of Section VIII (Agricultural Education) and Section III (Conservation of Natural Resources).

OAK ROOM, RALEIGH HOTEL.

A. C. TRUE, *Chairman.*

Education in Forestry.
J. W. TOUMEY, Yale University, New Haven, Conn.

Phylotechnic Studies and Agricultural Experiments in "La Estanzuela" Uruguay.

ALBERTO BOERGER, Director of the Experiment Station, La Estanzuela, Uruguay.

The Progress of Agricultural Science in Cuba.

J. T. CRAWLEY, Director, Cuban Agricultural Experiment Station.

Extension Education.

KENYON L. BUTTERFIELD, President of the Massachusetts Agricultural College, Amherst, Mass.

MONDAY MORNING, JANUARY 3, 1916—9.30 O'CLOCK.

Session of Subsection 1.—Elementary Education.

SMALL BALLROOM, NEW WILLARD HOTEL.

JOAQUIN D. CASASÚS, Mexico, *Chairman.*

Pan Americanism and Education.

Sra. ERNESTINA A. LOPEZ DE NELSON, Argentine Republic.

Address by ALEJANDRO V. DEUSTUA, Peru.

Address by LUIS A. BARALT, Cuba.

Address by JOSÉ MARÍA GÁLVEZ, Professor of English, University of Chile.

Problem of Primary Education in Latin America.

GUILLERMO A. SHERWELL.

Some of the Needs of Popular Education in Latin America.

DARÍO E. SALAS, Professor of Pedagogic Institute, Santiago, Chile.

Public Instruction in Paraguay.

JUAN F. PÉREZ, Secretary of Public Instruction, Paraguay.

Address by Miss LUCY WHEELOCK, Boston, Mass.

Session of Subsection 10.—Commercial Education.

PAN AMERICAN UNION.

ALBERT A. SNOWDEN, *Chairman.*

The Teaching of Special Subjects in the Collegiate Course of Study for Business, Domestic and Foreign:

Government.
JESSE S. REEVES, University of Michigan, Ann Arbor, Mich.

History.
WILLIAM R. SHEPHERD, Columbia University, New York, N. Y.

Banking and Finance.
CHARLES LEE RAPER, University of North Carolina, Chapel Hill, N. C.

Business Ethics and Psychology.
JAMES E. LOUGH, New York University, New York, N. Y.

Organization and Administration.
ARTHUR E. SWANSON, Northwestern University, Evanston, Ill.

MONDAY AFTERNOON, JANUARY 3, 1916—2.30 O'CLOCK.

Joint Session of Subsections 1, 3, and 5.

CABINET ROOM, NEW WILLARD HOTEL.

FREDERICK P. KEPPEL, *Chairman.*

Organization and Development of a Plan for the Systematic Exchange of University Students and University Professors between the Several American Republics.
JOHN BASSETT MOORE, Columbia University, New York, N. Y.

On the Road Toward the Pan American University.
NARCISO GARAY, Director, National Conservatory of Music and Declamation, Republic of Panama.

The Teaching of Modern Languages in the Secondary Schools in Chile.
Srita. GRACIELA MANDUJANO, Chile.

Opportunities in American Industrial Establishments for Graduates of Technical Schools of South America.

L. S. ROWE, University of Pennsylvania, Philadelphia, Pa. (Read by FREDERICK P. KEPPEL.)

Discussion of the Steady Movement Toward Making University Teaching a Separate Profession in Law, Medicine, Theology, Science, etc.

CLYDE FURST, Carnegie Foundation for the Advancement of Teaching, New York, N. Y.

The Aims of Secondary Education.

LUIS GALDAMES, Chile. (Read by J. M. GÁLVEZ, of Chile.)

Exchange of Teachers between Mexico and the United States.

G. B. WINTON, Vanderbilt University.

American Diplomas Abroad.

FELIPE GALLEGOS, Secretary to the Faculty of Dental Surgery, Costa Rica.

Session of Subsection 10.—Commercial Education.

PAN AMERICAN UNION.

ALBERT J. SNOWDEN, *Chairman.*

Business Colleges.

C. C. GAINES, President, Eastman Business College, Poughkeepsie, N. Y.

Address by Hon. WILLIAM J. BRYAN.

TUESDAY MORNING, JANUARY 4, 1916—9.30 O'CLOCK.

Session of Subsection 3.—University Education.

CABINET ROOM, NEW WILLARD HOTEL.

FRANK L. MCVEY, *Chairman.*

Relation of the American University to Public Service and the Work of Governmental Administration.

FRANK L. MCVEY, President, University of North Dakota, Grand Forks, N. Dak.

Extra-Mural Services of State and Endowed Universities, Including University Extension.

(*a*) *Humanistic.*

EDWARD K. GRAHAM, President, University of North Carolina, Chapel Hill, N. C.

(*b*) *Governmental.*

HERMAN G. JAMES, Professor, University of Texas, Austin, (Read by W. R. MANNING.)

Session of Subsection 6.—Engineering Education.

LARGE BALLROOM, NEW WILLARD HOTEL.

A. A. HAMERSCHLAG, *Chairman.*

Highway Engineering.

ARTHUR H. BLANCHARD, Columbia University, New York, N. Y.

Ceramics and Cement Technology.

ARTHUR S. WATTS, Ohio State University, Columbus, Ohio.

Essential Physical Equipment for Engineering Education.

CHARLES H. BENJAMIN, Dean, Purdue University, Lafayette, Ind.

Chemical Engineering.

MILTON G. WHITAKER, Columbia University, New York, N. Y.

Electrical Engineering.

DUGAL JACKSON, Massachusetts Institute of Technology, Boston, Mass.

Session of Subsection 7.—Medical Education.

INTERSTATE ROOM, NEW WILLARD HOTEL.

W. C. BORDEN, *Chairman.*

The Study of Tropical Diseases in America.

RAFAEL GONZÁLEZ RINCONES, Senator, Venezuela.

State Control of Medical Licensure.

AUGUSTUS S. DOWNING, LL. D., Assistant Commissioner for Higher Education, State Department of Education, Albany, N. Y.

The Development of a Fifth Year in Medical Education.

SAMUEL W. LAMBERT, M. D., New York, N. Y.

Session of Subsection 10.—Commercial Education.

PAN AMERICAN UNION.

FREDERICK C. HICKS, *Chairman.*

New York University: Two-Year Course and Individualization of Training for Business.

JEREMIAH W. JENKS, Director, Division of Public Affairs, New York University, New York, N. Y.

Harvard Graduate School of Business Administration.

EDWIN F. GAY, Cambridge, Mass.

University of Cincinnati: Continuation and Evening Courses.

FREDERICK C. HICKS, Cincinnati, Ohio.

University of Oregon: Problems of the Detached School.

HARRY B. MILLER, Director, School of Commerce, Eugene, Oreg.

TUESDAY AFTERNOON, JANUARY 4, 1916—2.30 O'CLOCK.

Session of Subsection 10.—Commercial Education.

PAN AMERICAN UNION.

ROGER W. BABSON, *Chairman.*

Special Courses for Commercial Study.

Correspondence Schools.

T. J. FOSTER, President, International Correspondence Schools, Scranton, Pa.

SHERWIN CODY, Director, National Associated Schools of Scientific Business, Chicago, Ill.

University Extension Work for Men in Business.

SAMUEL MACCLINTOCK, La Salle Extension University, Chicago, Ill.

Alexander Hamilton Institute.

JOSEPH FRENCH JOHNSON, New York University, New York, N. Y.

National Association of Corporation Schools.

LEE GALLOWAY, Alexander Hamilton Institute, New York, N. Y.

Commercial Museum.

W. P. WILSON, Commercial Museum, Philadelphia, Pa.

The National City Bank.

F. C. SCHWEDTMAN, Educational Director, the National City Bank, New York, N. Y.

Bureau of Commercial Economics.

FRANCIS HOLLEY, Director, Bureau of Commercial Economics, Washington, D. C.

WEDNESDAY MORNING, JANUARY 5, 1916—9.30 O'CLOCK.

General Session of Section IV to Discuss the Pan American Topics.

LARGE BALLROOM, NEW WILLARD HOTEL.

P. P. CLAXTON and ERNESTO NELSON, *Chairmen.*

To What Extent Should Elementary Education be Supported by Local Taxation and to What Extent by State Taxation? What Should be the Determining Factors in the Distribution of Support?

DARÍO E. SALAS, Chile.

Address by K. G. MATHEWSON, President, Georgia School of Technology of Atlanta, Ga.

What Should be the Primary and What the Secondary Purpose of High School Education?

ERNESTO NELSON, National Inspector of Higher Education, Argentine Republic.

The Future of Pan Americanism.

PETER H. GOLDSMITH, Director, Pan American Division, American Association for International Conciliation, New York, N. Y.

To What Extent Should Courses of Study in the High School be Determined by the Requirements for Admission to College, and to What Extent by the Demands of Industrial and Civic Life?

JUAN MONTEVERDE, Uruguay.

Medical Education.

TEODORO MUHM, Chile.

THURSDAY MORNING, JANUARY 6, 1916—10 O'CLOCK.

Session of the Entire Section.

ERNESTO NELSON, *Chairman.*

What Remains to be Done for Education.
LUIS A. BARALT, Professor, Institute of Habana, Cuba.

To What Extent Should Elementary Education be Supported by Local Taxation and to What Extent by State Taxation? What Should be the Determining Factors in the Distribution of Support?
Miss JEANNE PUCH and Miss MARGUERITE GALHARRET, Salvador.

Things Which Interest Students in the United States, as Compared With the Interest of Similar Students in Europe and Latin America.
HARRY E. BARD, New York, N. Y.
JOHN D. FITZ-GERALD, University of Illinois, Urbana, Ill.

Purposes of High School Education.
A. M. ZÚÑIGA, Nicaragua.

Should Universities and Colleges Supported by Public Funds be Controlled by Independent and Autonomous Powers, or Should They be Controlled Directly by Central State Authority?
R. CAÑEDO C., President, University of Cochabamba, Bolivia.

To What Extent is Coeducation Desirable in Elementary Schools, High Schools, Colleges, and Universities?
FRANCISCO A. RÍSQUEZ, Secretary, National Board of Instruction, Venezuela.
EMILIO JACOBS, Bolivia.
FRANCISCO BUITRAGO DÍAZ, Nicaragua.

To What Extent is an Exchange of Students and Professors Between American Republics desirable? What is the Most Effective Basis for a System of Exchange? What Plans Should be Adopted in Order to Secure Mutual Recognition of Technical and Professional Degrees by American Republics?
REYNALDO PORCHAT, Brazil.
DOMINGO AMUNÁTEGUI SOLAR, Rector of the University of Chile, Santiago, Chile.

Plans for Securing a Mutual Recognition of Technical and Professional Degrees Granted by Institutions of the First Rank in the Several American Republics.

RÓMULO E. DURÓN, Honduras.

AUGUSTUS S. DOWNING, First Assistant Commissioner in Higher Education, Albany, N. Y.

FRIDAY MORNING, JANUARY 7, 1916—9.30 O'CLOCK.

Session of Entire Section.

LARGE BALLROOM, NEW WILLARD HOTEL.

P. P. CLAXTON, *Chairman.*

Method in Pedagogic Science.

LUIS ARCE LACARZE, Bolivia.

Synthetic Report on Education in the State of Sao Paulo.

TIBURTINO MONDIM PESTANA, Brazil.

Physical Education in Bolivia.

HENRI DE GENST, Bolivia.

Pan American Bibliographic Union.

CARLOS SILVA CRUZ, Chile. (Read by Prof. DARÍO E. SALAS.)

The State and Music in the Americas.

NARCISO GARAY, Director of the National Conservatory of Music and Declamation, Republic of Panama.

A Contribution to Pan American Understanding.

JOSÉ MARÍA GÁLVEZ, Professor, University of Chile.

A Scheme for Modern Education.

RODOLFO ROBLES, Guatemala.

Medical Relations in the Americas.

CARLOS MORALES MACEDO, Perú.

The Teaching of General Mathematics in the University of La Plata.

HUGO BROGGI, Professor of Mathematical Analysis and Higher Mathematics, Argentine Republic.

The Teaching of Mathematics in the Public Schools.
RODRIGO MUÑOZ ORIBE, Surveyor, Professor of Mathematics, University of Uruguay.

Substitution for the Euclid Postulate of Another Seemingly Evident.
JULIO COMPTÉ Y RIQUÉ, Uruguay.

Education and Social Economy Contributions of the Panama-Pacific International Exposition to Pan American Interests.
ALVIN S. POPE, Chief, Department of Education and Social Economy, Panama-Pacific International Exposition, San Francisco Cal.

The Educational Value of Endowment for Public Schools.
JOHN A. BRASHEAR, Educational Fund Commission, Pittsburgh, Pa.

FRIDAY AFTERNOON, JANUARY 7, 1916—2.30 O'CLOCK.

Session of Entire Section.

NEW WILLARD HOTEL.

JOSÉ MARÍA GÁLVEZ, *Chairman.*

Industrial Education.
HAROLD E. EVERLEY, Special Student, Bradley Polytechnic Institute, Peoria, Ill.

To What Extent May College Courses in Engineering be Profitably Supplemented by Practical Work in the Shop? To What Extent May Laboratory Work in Engineering be Replaced Through Cooperation with Industrial Plants?
JUAN MONTEVERDE, Uruguay.
ARTHUR A. HAMERSCHLAG, Director, Carnegie Institute of Technology, Pittsburgh, Pa.

Subsection 7.—Medical Education.

What Preparation Should be Required for Admission to Medical Schools? What Should be the Minimum Requirements for Graduation? What Portion of the Faculty of a Medical School Should be Required to Give All Their Time to Teaching and Investigation? What Instruction May Best be Given by Physicians Engaged in Medical Practice?
FRANCISCO A. RÍSQUEZ, Secretary, National Board of Instruction, Venezuela.

Subsection 8.—Agricultural Education.

What Preparations Should be Required for Admission to State and National Colleges of Agriculture? To What Extent Should the Courses of Study in the Agricultural College be Theoretical and General, and to What Extent Practical and Specific? To What Extent Should the Curriculum of Any Such College be Determined by Local Conditions?

B. H. A. GROTH, Panama.

Subsection 9.—Industrial Education.

What Should be the Place of Industrial Education in the School System of the American Republics? Should it be Supported by Public Taxation? Should it be Considered Under Separate Control? How and to What Extent May Industrial Schools Cooperate With Employers of Labor?

H. METTEWIE, Bolivia.

JOAQUÍN CABEZAS, Chile.

ALFREDO SAMONATI, Technical Inspector of Primary Instruction, Uruguay.

JULIO CÉSAR BOLET, Venezuela.

HAROLD E. EVERLEY, Special Student, Bradley Polytechnic Institute, R. A., Peoria, Ill.

Subsection 10.—Commercial Education.

How Can a Nation Prepare in the Most Effective Manner its Young Men for a Business Career That is to be Pursued at Home or in a Foreign Country?

(a) *In Schools That are a Part of the Public School System.*

(b) *In Schools of Private Endowment.*

(c) *In Special Business Schools of Private Ownership.*

Outline a Course of Study That Will Best Prepare Young Men to Engage in Such a Business Career. Each Suggested Outline Should Consider not Only the Character of the Educational System of the Country for Which the Course of Study is Intended, but the Desirability and Practicability in a Uniform Course of Business Education for all Pan American Countries.

SANTIAGO H. FITZ SIMÓN, Professor, International School, Buenos Aires, Argentina.

ANTONIO L. VALVERDE, Professor, School of Commerce, Habana, Cuba.

A. AUBERT, Nicaragua.

M. DELLEY, Venezuela.

FRANCISCO ARAYA BENNETT, Chile.

SECTION V.—ENGINEERING.

Brig. Gen. W. H. BIXBY, *Chairman.*
JOSÉ RAMÓN VILLALÓN, *Honorary Chairman.*
ELMER L. CORTHELL, *Secretary.*
ALBERTO SMITH, *Corresponding Secretary.*

Subsection 1.—Civil Engineering.
Subsection 2.—Marine Engineering.
Subsection 3.—Electrical Engineering.
Subsection 4.—Reclamation, Sewage, and Municipal Water Supply.
Subsection 5.—Mechanical Engineering.
Subsection 6.—Standards, Surveys, Parks, Buildings, Nomenclature.

TUESDAY AFTERNOON, DECEMBER 28, 1915—2.30 O'CLOCK.

Session of Subsection 1.

RALEIGH HOTEL, FIRST FLOOR, GREEN ROOM.

E. L. CORTHELL, *Chairman.*

Scientific Work of the United States Office of Public Roads.

L. W. PAGE, Director, Office of Public Roads, United States Department of Agriculture, Washington, D. C.

Public Roads in the United States.

J. E. PENNYBACKER, Chief, Division of Road Economics, United States Office of Public Roads.

City Streets and Pavements.

GEORGE W. TILLSON, Consulting Engineer, Borough of Brooklyn, Brooklyn, N. Y. (Read by J. E. PENNYBACKER.)

Highways and Streets in Bogota.

A. MANRIQUE MARTÍN, Bogota, Colombia.

Highways in Ecuador.

FRANCISCO MANRIQUE, Ecuador.

Session of Subsection 2.

RALEIGH HOTEL, NINTH FLOOR, ROOM 934.

Capt. C. A. McALLISTER, *Chairman.*

Scientific Work of the United States Navy.
Admiral D. W. TAYLOR, Chief, Bureau of Construction and Repair, United States Navy.

Engineering and Scientific Work of the United States Coast Guard.
Capt. C. A. McALLISTER, Engineer in Chief, United States Coast Guard.

Organization of Technical Work of the United States Lighthouse Service.
G. R. PUTNAM, Commissioner, United States Bureau of Lighthouses, Department of Commerce, United States of America.

Lighthouses, Light Vessels, Fog Signals, and Buoys.
G. R. PUTNAM, Commissioner, United States Bureau of Lighthouses, United States of America.

Session of Subsection 4.

RALEIGH HOTEL, FIRST FLOOR, PRIVATE DINING ROOM.

M. O. LEIGHTON, *Chairman.*

Municipal Water Supply. (Lantern slides.)
GEORGE C. WHIPPLE, Harvard School of Engineering, Cambridge, Mass.

Reservoirs for Municipal Water Supply. (Illustrated with lantern slides.)
ALFRED D. FLINN, Deputy Chief Engineer, Board of Water Supply of City of New York, New York, N. Y.

Session of Subsection 5.

RALEIGH HOTEL, FIRST FLOOR, ENGLISH ROOM.

CARL C. THOMAS, *Chairman.*

Economy of Steam Power Plants, Using Gas, Gasoline, Coal, and Other Pan American Fuels.
WILLIAM KENT, 64 Orange Road, Montclair, N. J.
Discussion of same by—
CHANDLER DAVIS, 1 Broadway, New York, N. Y.

Agricultural Implements and Machinery.
E. B. McCORMICK, Chief, Division of Rural Engineering, United States Department of Agriculture, Washington, D. C.

TUESDAY EVENING, DECEMBER 28, 1915—8 O'CLOCK.

Second General Session of Section V.—Engineering.

PAN AMERICAN BUILDING.

Joint Session of Section V with Section III (Conservation) and with Section VII (Mining) in Pan American Building.

W. L. SAUNDERS, *Chairman.*

Paper furnished by Section III, Conservation:

Conservation of Human Life.
T. N. CARVER, Harvard University, Cambridge, Mass.

Paper furnished by Section VII, Chemistry:

The Functions of Food in Securing National Efficiency.
H. W. WILEY, Chemist, former President American Chemical Society.

Work of United States Office of Public Buildings and Grounds. (Illustrated with lantern slides.)
Col. W. W. HARTS, United States Army, in charge of United States Office of Public Buildings and Grounds.

WEDNESDAY MORNING, DECEMBER 29, 1915—9.30 O'CLOCK.

Session of Subsection 1.

RALEIGH HOTEL, TENTH FLOOR, SMALL BANQUET ROOM.

E. L. CORTHELL, *Chairman.*

Long Span Bridges. (With lantern slides.)
H. S. JACOBY, Cornell University, Ithaca, N. Y.

Vertical Lift Bridges. (With lantern slides.)
J. A. L. WADDELL, Kansas City, Mo.

Session of Subsection 4.

RALEIGH HOTEL, FIRST FLOOR, GREEN ROOM.

Joint Session of Subsections 3 and 4, Section V, with Section III, Subsection 3 (Water Powers), in Section V Rooms.

JOHN B. WHITEHEAD; H. W. GROVER, *Chairmen.*

Electrochemical Industries.
G. A. ROUSH, Lehigh University, South Bethlehem, Pa.

Industrial Applications of Electricity.
PHILIP TORCHIO, 124 East Fifteenth Street, New York City.

Present Status of Water Power Development.
H. W. BUCK, 49 Wall Street, New York City.

Laws and Regulations Regarding the Use of Water for All Purposes.
(Question specially referred to this Congress by its predecessor.)

Laws Governing Running Water and Waterfalls.
G. CLODOMIRO PEREIRA DA SILVA, Technical Counselor, Ministry of Agriculture, State of Sao Paulo, Brazil.

Laws and Regulations Regarding the Use of Water for All Purposes in North and South America.
ROME G. BROWN, 1006 Metropolitan Life Building, Minneapolis, Minn.

Paper furnished by Section III:

Regulation and Control of Water Power as a Public Utility by State Commissions.
HALFORD ERICKSON, Chairman, Railroad Commission of Wisconsin, Madison, Wis.

WEDNESDAY AFTERNOON, DECEMBER 29, 1915—2.30 O'CLOCK.

Joint Session of Subsections 1 and 5.

RALEIGH HOTEL, NINTH FLOOR, ROOM 910.

E. L. CORTHELL, *Chairman.*

Bascule Bridges.
J. B. STRAUSS, 104 South Michigan Avenue, Chicago, Ill.

Fixed Submersible Bridges.
FEDERICO A. CAPURRO, Uruguay.

Aerial Transporters or Conveyors in Warehouses and at Port Terminals.
EDUARDO GARCÍA DE ZÚÑIGA, Montevideo, Uruguay.

Session of Subsection 3.

RALEIGH HOTEL, FIRST FLOOR, OAK ROOM.

Joint Session of Section V, Subsection 3 (Electricity) with Section III, Subsection 3 (Conservation), in Section V, Subsection 3, rooms at Raleigh Hotel.

JOHN B. WHITEHEAD, *Chairman.*

Hydroelectric Utilization at Niagara and Elsewhere. (With lantern slides and moving pictures.)
MAURICE DEUTSCH, 50 Church Street, New York City.

Paper presented by Section III, Subsection 3:

Water Powers in Brazil.
LUIS BETIM PAES LEME, Brazil.

THURSDAY MORNING, DECEMBER 30, 1915—9.30 O'CLOCK.

Session of Subsection 1.

RALEIGH HOTEL, FIRST FLOOR, GREEN ROOM.

E. L. CORTHELL, *Chairman.*

Scientific Work of the Corps of Engineers, United States Army.
Col. E. E. WINSLOW, Corps of Engineers, United States Army, War Department, United States of America.

Contracting and Regulating Works at the Mouths of Rivers.
E. L. CORTHELL, North Egremont, Mass.

Improvement of Mouth of Magdalena River.
MIGUEL TRIANA, Civil Engineer, Colombia.

Estuary of La Plata.
FRANCISCO P. MIRANDA, Montevideo, Uruguay.

New York State Canals.
WILLIAM B. LANDRETH, Deputy State Engineer, Albany, N. Y.

Session of Subsection 6.

RALEIGH HOTEL, FIRST FLOOR, PRIVATE DINING ROOM.

O. E. PITTMAN; S. W. STRATTON, *Chairmen.*

Acceptance Tests of Electrical Apparatus.
CLAYTON H. SHARP, Technical Director, New York Electrical Testing Laboratories, Eightieth Street and East End Avenue, New York, N. Y.

Work of the United States National Bureau of Standards. (With lantern slides.)

S. W. STRATTON, Director, United States Bureau of Standards, Washington, D. C.

THURSDAY AFTERNOON, DECEMBER 30, 1915 2.30 O'CLOCK.

Session of Subsection 1.

RALEIGH HOTEL, NINTH FLOOR, ROOM 910.

E. L. CORTHELL, *Chairman.*

Mountain Railroad Transportation Development.

G. CLODOMIRO PEREIRA DA SILVA, Technical Counselor, Ministry of Agriculture, State of Sao Paulo, Brazil. (Read by J. R. VILLALÓN.)

Session of Subsection 4.

RALEIGH HOTEL, TENTH FLOOR, ANTEROOM TO BANQUET ROOM.

M. O. LEIGHTON, *Chairman.*

Joint Session of Subsection 4, Section V, with Section III, Subsection 4 (Irrigation) in Section III rooms.

(The topic of Irrigation was specially referred to this Congress by its predecessor.)

Engineering Work of the United States Reclamation Service.

A. P. DAVIS, Director, United States Reclamation Service, Department of the Interior, United States of America.

Irrigation and Drainage.

F. H. NEWELL, University of Illinois, Urbana, Ill.

Papers furnished by Section III:

The Irrigation Work of the Indian Office.

W. M. REED, United States Indian Office.

Use of Irrigation Waters as Sources of Power.

GEORGE G. ANDERSON, Los Angeles, Cal.

Irrigation in the United States. (With lantern slides.)

SAMUEL FORTIER, Chief of Irrigation Investigations, Department of Agriculture, Washington, D. C.

FRIDAY MORNING, DECEMBER 31, 1915—9.30 O'CLOCK.

Third General Session of Section V.—Engineering.

Joint session of entire Section V with Section IV, Subsection 6 (Engineering Education), and Section VII, Subsection 4 (Applied Chemistry), on topic of Engineering Nomenclature.

RALEIGH HOTEL, FIRST FLOOR, PRIVATE DINING ROOM.

GARDNER C. ANTHONY, *Chairman.*

Engineering Nomenclature. (This topic was specially referred to this Congress by its predecessor.)
ALBERTO SMITH.

Papers by Section IV (Educational Engineering):

The Influence of Technical Journals upon Engineering Education.
T. A. RICKARD, Editor, Mining and Scientific Press, San Francisco, Cal.
THOMAS J. READ, New York.

Engineering Education in the United States.
CHARLES S. HOWE, President, Case School of Applied Science, Cleveland, Ohio.

What is Engineering Education Contributing toward Scientific Progress and Invention?
VLADIMIR KARAPETOFF, Cornell University, Ithaca, N. Y.
WALTER RAUTENSBRAUCH, Columbia University, New York, N. Y.

Significance of Engineering Degrees in the United States.
WILLIAM T. MAGRUDER, 342 West Ninth Street, Columbus, Ohio.

Paper by Section VII (Mining):

The United States Bureau of Mines.
VAN. H. MANNING, Director, Bureau of Mines.

MONDAY MORNING, JANUARY 3, 1916—9.30 O'CLOCK.

Session of Subsection 1.

RALEIGH HOTEL, FIRST FLOOR, GREEN ROOM.

LOGAN WALTER PAGE, *Chairman.*

Potable Water Supply of Sucre, Bolivia.
CARLOS DOYNEL, Engineer, Bolivia.

Engineering in General in Colombia.
PAULO PINZÓN, Bogota, Colombia.

Best Type of Construction for Piers and Quays on Water Fronts of Great Depths and Swift Currents. (Question specially referred to this Congress by its predecessor.)
J. F. COLEMAN, 920 Hibernia Building, New Orleans, La.
Discussion by CHANDLER DAVIS, 1 Broadway, New York, N. Y.

Soils as Regards Pressures Allowable Thereon.
ROBERT A. CUMMINGS, 225 Fourth Avenue, Pittsburgh, Pa.

Session of Subsection 3.

RALEIGH HOTEL, FIRST FLOOR, ENGLISH ROOM.

JOHN B. WHITEHEAD, *Chairman.*

Electric Current and Flow.
BAUTISTA LASGOYTI, Uruguay.

Electric Power Transmission and Distribution Systems.
PERCY H. THOMAS, 2 Rector Street, New York City.

Aluminum Conductors for Electric Transmission Lines.
THEODORE VARNEY, Aluminum Company of America, Pittsburgh, Pa.

Underground Cables.
H. W. FISHER, Standard Underground Cable Company, Perth Amboy, N. J.

Exact Calculation of Electric Transmission Lines.
ARTURO E. SALAZAR, Chile.

Session of Subsection 4.

RALEIGH HOTEL, NINTH FLOOR, ROOM 910.

M. O. LEIGHTON, JOHN H. FINNEY, *Chairmen.*

Final Disposition of City Sewage.
RUDOLPH HERING, Sanitary Engineer, 170 Broadway, New York City.

Sewers and Sewage Disposal.
H. DE B. PARSONS, 22 William Street, New York City.
G. CLODOMIRO PEREIRA DA SILVA, Technical Counselor, Ministry of Agriculture, State of Sao Paulo, Brazil. (Read by M. O. LEIGHTON.)

Sanitary Engineering in Ecuador.
FRANCISCO MANRIQUE.

Sanitary Engineering in Bogota.
CARLOS DE NARVÁEZ, Q., Bogota, Colombia. (Read by EDWARD BARTOW.)

Joint Session of Subsections 5 and 6.

RALEIGH HOTEL, FIRST FLOOR, PRIVATE DINING ROOM.

CARL C. THOMAS, *Chairman.*

New Property of Involution of Polygons Circumscribed and Inscribed to Conic Sections.
JOSÉ ISAAC DEL CORRAL.

Method of Diagonal Notation, etc.
RODOLFO AGUILAR BATRES, Topographical Engineer, Guatemala.

The Gyroscope Applied to Aerial and Water Navigation. (With lantern slides and moving pictures.)
ELMER A. SPERRY, Sperry Gyroscope Company, Manhattan Bridge Plaza, Brooklyn, N. Y.

Chronocyclograph Motion Devices for Measuring Achievement. (With lantern slides.)
FRANK B. GILBRETH, 77 Brown Street, Providence, R. I.

MONDAY AFTERNOON, JANUARY 3, 1916—2.30 O'CLOCK.

Session of Subsections 1 and 2.

NEW WILLARD HOTEL, TENTH FLOOR, SMALL BALLROOM.

Joint Session of Subsections 1 and 2, Section V, with Subsection 1 of Section IX (Transportation) in Section IX Rooms at the New Willard Hotel.

Brig. Gen. W. H. BIXBY, JOHN H. BRASHEAR, and ALEXANDER GRAHAM BELL, *Chairmen.*

Merchant Marine.
LEWIS NIXON, 22 East Thirty-third Street, New York, N. Y.

Shallow-draft Boat and Barge Transportation.
Col. L. H. BEACH, Corps of Engineers, United States Army, Cincinnati, Ohio, in collaboration with
Lieut. Col. CHARLES KELLER, Corps of Engineers, United States Army, Mobile, Ala.

Hydroplanes for Passenger and Freight Transportation on Inland Waters. (With lantern slides.)
GONZALO MEJÍA, Colombia.

Airships to Assist in Joining North and South America. (Illustrated by lantern slides and moving pictures.)
SANTOS DUMONT, Aviator, Brazil.

TUESDAY MORNING, JANUARY 4, 1916—9.30 O'CLOCK.

Session of Subsection 1.

RALEIGH HOTEL, FIRST FLOOR, ENGLISH ROOM.

E. L. CORTHELL, *Chairman.*

Instrumental Hydrographic Work in River de La Plata.
Drainage of Basin of La Plata.
Hydrography and Navigation of the River de la Plata.
AGUSTÍN MERCAU, Vice Dean of National University of Buenos Aires, Argentina.

Harbor and Port Terminal Facilities and Works.
H. McL. HARDING, 52 Vanderbilt Avenue, New York City.

Employment and Behavior of Concrete and Reinforced Concrete in Fresh and Saline Waters and Under Servitude of Waves in Exposed Positions.
CHANDLER DAVIS, 1 Broadway, New York City.

Session of Subsection 3.

RALEIGH HOTEL, FIRST FLOOR, PRIVATE DINING ROOM.

JOHN B. WHITEHEAD, *Chairman.*

Electrical Codes and Standards.
EDWARD B. ROSA, United States National Bureau of Standards, Washington, D. C.

Recent Telegraph and Telephone Development.
F. B. JEWETT, Assistant Chief Engineer, Western Electric Company, 463 West Street, New York City. (Read by Mr. SHREEVE.)

Steel-Tripod Telegraph Posts.
GUILLERMO DESTRUGE, Director General of Telegraph and Telephones, Quito, Ecuador.

Electrification of Transportation Lines.
N. W. STORER, General Engineer, Westinghouse Electric and Manufacturing Company, East Pittsburgh, Pa.

Radiotelegraphy in Uruguay.
BERNARDO KAYEL, Montevideo, Uruguay.

Wireless Telegraph Service and Conventions.
EMILIO E. DAGASSAN, Engineer Lieutenant, Argentine Navy.

Proposition for a Pan American Radiotelegraph Convention.
Rear Admiral JUAN A. MARTÍN, and Engineer Lieut. EMILIO E. DAGASSAN, Argentine Navy.

Physical Aspects of Radiotelegraphy. (Lantern slides.)
JOHN N. HOGAN, Jr., Chief Research Engineer, National Electric Signaling Company, Brooklyn, N. Y.

Session of Subsection 4.

Joint session of Subsection 4, Section V, with Section VIII, Subsection 4 (Public Health, Sanitation, Water Supply) Section VIII.

NEW EBBITT HOTEL, SECTION VIII ROOMS.

J. D. GATEWOOD, Medical Director, United States Navy, *Chairman.*

Disposal of Sewage and Garbage.
MORRIS KNOWLES, Oliver Building, Pittsburgh, Pa.

Street Cleaning and Disposal of Its Refuse.
J. W. PAXTON, Office of Engineer Commissioner, District of Columbia, Washington, D. C.

Papers and writers furnished by Section VIII, Subsection D:

Disposal of Refuse.
GEORGE A. SOPER, President, Metropolitan Sewage Commission, New York City.
WILLIAM T. SEDGEWICK, Massachusetts Institute of Technology, Boston, Mass.
J. T. FETHERSON, Commissioner of Street Cleaning, New York, N. Y.

TUESDAY AFTERNOON, JANUARY 4, 1916—2.30 O'CLOCK.

Session of Subsection 1.

RALEIGH HOTEL, FIRST FLOOR, PRIVATE DINING ROOM.

E. L. CORTHELL, *Chairman.*

Engineering and Other Scientific Work of the United States Coast and Geodetic Survey. (With moving pictures.)

E. LESTER JONES, Superintendent, United States Coast and Geodetic Survey, Washington, D. C.

Engineering and Other Scientific Work of the United States Geological Survey.

R. B. MARSHALL, Chief Geographer, United States Geological Survey, Washington, D. C.

Governmental Geographical Work in Colombia.

M. ESCOBAR LARRAZÁBAL, Engineer, Office of Longitudes of Colombia.

Surface Curve of Water in an Open River Channel.

RAMÓN SALAS EDWARDS, Professor, Catholic University, Santiago, Chile.

Sandy Seacoast Shore Protection.

B. F. CRESSON, Jr., New Jersey State Board of Commerce and Navigation, 75 Montgomery Street, Jersey City, N. J.

As part of the discussion:

Development of the More Important Shore Protection Work in Holland, 1905–1915.

JOHN W. THIERRY, Haarlem, Holland.

WEDNESDAY MORNING, JANUARY 5, 1916—9.30 O'CLOCK.

Session of Subsection 1.

SPECIAL PAN AMERICAN TOPICS FOR SECTION V.

RALEIGH HOTEL, TENTH FLOOR, SMALL BANQUET ROOM

Gen. W. H. BIXBY and ELMER L. CORTHELL, *Chairmen.*

Uniform Gauge for Railways in Central and South America.

G. CLODOMIRO PEREIRA DA SILVA, Technical Counselor, Ministry of Agriculture, State of Sao Paulo, Brazil.

C. TEJADA SOLÓRZANO, Civil Engineer, La Paz, Bolivia

Uniform Gauge for Railways.
SANTIAGO MARÍN VICUÑA, Civil Engineer, Santiago, Chile.

Uniform Gauge for Railways in Pan America. (Special Pan American topic for Section V.)
FRED LAVIS, 50 Church Street, New York City.

WEDNESDAY EVENING, JANUARY 5, 1916–8 O'CLOCK.

MEMORIAL CONTINENTAL HALL.

An Evening with the Stars. (Illustrated by lantern slides.)
JOHN BRASHEAR, President, American Society of Mechanical Engineers.

THURSDAY MORNING, JANUARY 6, 1916—9.30 O'CLOCK.

Session of Subsection 6.

RALEIGH HOTEL, TENTH FLOOR, SMALL BANQUET ROOM.

ELMER L. CORTHELL, *Chairman.*

New Traverse Tables, with Sexagesimal and Centesimal Divisions of Arcs.
IBERIO SAN ROMÁN, Buenos Aires, Argentine.

SECTION VI.—INTERNATIONAL LAW, PUBLIC LAW, AND JURISPRUDENCE.

JAMES BROWN SCOTT, *Chairman.*
CLEMENT L. BOUVÉ, *Secretary of Subsection on International Law.*
IGNATIUS J. COSTIGAN, *Secretary of Subsection on Public Law.*
A. GONZÁLES-LAMAS, *Corresponding Secretary.*

First Session of Section VI.

TUESDAY MORNING, DECEMBER 28, 1915—10 O'CLOCK.

SHOREHAM HOTEL.

JAMES BROWN SCOTT, *Chairman.*

Opening of session, JAMES BROWN SCOTT.

Relation of International Law to National Law in American Countries.
ALEJANDRO ÁLVAREZ, Counselor for the Legations of Chile in Europe.

Should International Law be Codified? And if so, Should it be Done Through Governmental Agencies or by Private Scientific Institutions?
RODRIGO OCTAVIO, of the Faculty of Legal and Social Sciences of the University of Rio de Janeiro.

Relations Between the Judicial and Legislative Powers.
EDUARDO RODRÍGUEZ PIÑERES, of Colombia.

Criminal Law and Procedure with Special Reference to the Scope and Limits of Jury Trials.
MOISÉS A. VIEITES, of Cuba.

TUESDAY AFTERNOON, DECEMBER 28, 1915—2 O'CLOCK.

First Session of the Subsection on International Law.

SHOREHAM HOTEL.

CHARLES NOBLE GREGORY, *Chairman.*

Opening of the meeting by JAMES BROWN SCOTT.

How Can the People of the American Countries Best be Impressed with the Duties and Responsibilities of the State in International Law?
DAVID JAYNE HILL, formerly American Ambassador to Germany.

The Study of International Law in American Countries and the Means by Which it May be Made More Effective.
JACOB GOULD SCHURMAN, President of Cornell University.
JAMES W. GARNER, Professor of Political Science in the University of Illinois.
CLEMENT L. BOUVÉ, of the Bar of the District of Columbia.

TUESDAY NIGHT, DECEMBER 28, 1915—8 O'CLOCK.

Second Session of the Subsection on International Law.

(Meeting Jointly with the American Society of International Law.)

SHOREHAM HOTEL.

ELIHU ROOT, *Chairman.*

The Relation of International Law to National Law in American Countries.
JOHN BASSETT MOORE, formerly Counselor for the Department of State.
GEORGE G. WILSON, Professor of International Law in Harvard University.

Papers reported:
JOSÉ MÉNDEZ, Professor of International Law in the University of Sao Paulo, Brazil.
JOSÉ LINHARES, Member of the Brazilian Society of International Law.

The Duties and Obligations of Neutral Governments, Parties to The Hague Conventions, in Case of Actual or Threatened Violations by Belligerents of the Stipulations of the Said Conventions.
NORMAN DWIGHT HARRIS, Professor of European Diplomatic History in Northwestern University.

WEDNESDAY MORNING, DECEMBER 29, 1915—10 O'CLOCK.

Third Session of the Subsection on International Law.

Meeting Jointly with the American Society of International Law.

SHOREHAM HOTEL.

CHARLES NOBLE GREGORY, *Chairman.*

The Attitude of American Countries Toward International Arbitration and the Peaceful Settlement of International Disputes.

WALTER S. PENFIELD, of the Bar of the District of Columbia.

JACKSON H. RALSTON, of the Bar of the District of Columbia.

What Means Should be Provided and Procedure Adopted for Authoritatively Determining Whether The Hague Conventions, or Other General International Agreements, or the Rules of International Law Have Been Violated? In Case of Violations, What Should be the Nature of the Remedy and How Should it be Enforced?

THEODORE S. WOOLSEY, formerly Professor of International Law in Yale University.

EDWARD A. HARRIMAN, of the Bar of New Haven, Conn.

Papers reported:

The Attitude of American Countries Toward International Arbitration and the Peaceful Settlement of International Disputes.

EUSEBIO BRACAMONTE, President of the Court of Second Instance of the Western Section of Salvador.

FRANCISCO CAPELLA Y PONS, of Montevideo, Uruguay.

ANTONIO MADRID, Honduras.

Attitude of Colombia Toward International Arbitration and the Peaceful Settlement of International Disputes.

ARCESIO PENAGOS, Popayán, Colombia.

The Right to Safety in the High Seas for the Citizens of all the American Republics.

A. CÉSAR, Nicaragua.

THURSDAY AFTERNOON, DECEMBER 30, 1915—2 O'CLOCK.

Fourth Session of the Subsection on International Law.

(Meeting Jointly with American Society of International Law and the American Institute of International Law.)

SHOREHAM HOTEL.

CHARLES NOBLE GREGORY, *Chairman.*

The Unification of International Law in the American Continent.
VICTOR MAURTUA, of Peru.

Should International Law be Codified? And if so, Should it be Done Through Governmental Agencies or by Private Scientific Societies?
ELIHU ROOT, President of the American Society of International Law.
SIMEON E. BALDWIN, formerly Chief Justice of the Supreme Court of Errors of Connecticut.
ARTHUR K. KUHN, of the New York Bar.

Informal discussions as to how the societies of international law in the different American countries can best cooperate with each other in promoting their common objects.

FRIDAY AFTERNOON, DECEMBER 31, 1915—2 O'CLOCK.

First Session of the Subsection on Public Law.

SHOREHAM HOTEL.

SIMEON E. BALDWIN, *Chairman.*

Opening of meeting by JAMES BROWN SCOTT.

The Historical Evolution of Public Law.
GORDON E. SHERMAN, Professor of Law in Yale University.

The Relation of Public Law to International Law.
JUSTICE BEACH, of the Supreme Court of Errors of Connecticut.

Criminal Law and Procedure with Special Reference to the Scope and Limits of Jury Trials, and the Several Theories for the Punishment of Criminals, and Differences Between the Criminal Procedure of States Following the Civil Law and Those Following the Common Law.
CHARLES F. MCLEAN, formerly Justice of the Supreme Court of New York.

Paper reported:
JOSÉ A. VARGAS TORRES, of Colombia.

MONDAY MORNING, JANUARY 3, 1916—10 O'CLOCK.

Second Session of the Subsection on Public Law.

SHOREHAM HOTEL.

SIMEON E. BALDWIN, *Chairman.*

Public Law as Affecting Legal Procedure in Civil Causes.
WILLIAM W. SMITHERS, formerly Secretary of the Bureau of Comparative Law of the American Bar Association.

The Effect on American Public Law of our Written Constitutions.
(*a*) *In Their Bearing on the Sovereignty of the State.*
LUCILIUS A. EMERY, formerly Chief Justice of Maine.
(*b*) *Constitutional Provisions Making Treaties Law.*
GEORGE D. WATROUS, Professor in Yale University.

Papers submitted by:
JOSÉ MAZA, Chile.
REYNALDO PORCHAT, Brazil.

MONDAY AFTERNOON, JANUARY 3, 1916—2 O'CLOCK.

Third Session of the Subsection on Public Law.

SHOREHAM HOTEL.

SIMEON E. BALDWIN, *Chairman.*

Is There an American Public Law that Can be Differentiated from That of Other Continents?
ROBERT LUDLOW FOWLER, Surrogate of New York, N. Y.

Presidential and Parliamentary Government on the American Continent in State and Nation. (This topic is suggested particularly to open discussion as to the means for preventing any lack of due cooperation between these two branches, including the admission of cabinet ministers to a voice in debate.)
RAFAEL MARÍA ANGULO, of the Bar of Cuba.
THOMAS I. PARKINSON, of Columbia University, New York, N. Y.
FERNANDO SÁNCHEZ DE FUENTES, of the Law School of Habana, Cuba.

Papers reported:

The Power of the President to Dictate By-Laws and Regulations.
MOISÉS VARGAS, Professor of Administrative Law in the University of Chile.

Relations Between the Judicial and Legislative Powers.
CARLOS BRAVO, of Colombia.

The Republican Dictatorship and the Brazilian Government.
ANTONIO DOS RÍOS CARVALHO, Professor, Rio de Janeiro, Brazil.

Government and Responsibility.
JUSTINO E. JIMÉNEZ DE ARÉCHAGA, of the Faculty of Law of Montevideo, Uruguay.

TUESDAY MORNING, JANUARY 4, 1916—10 O'CLOCK.

First Session of the Subsection on Jurisprudence.

SHOREHAM HOTEL.

EUGENE WAMBAUGH, *Chairman.*

Opening of the meeting, JAMES BROWN SCOTT.

Address by EUGENE WAMBAUGH.

Recent Law Reforms in the United States of America.
FREDERICK N. JUDSON, of the Bar of Missouri.

The Extra-territorial Effect of Criminal Statutes.
WILLIAM H. PAGE, Professor of Law in Ohio State University.

How May Lawyers of One Country be Most Easily and Effectively Made Acquainted with the Laws of Another Country?
ROBERT P. SHICK, Secretary of the Bureau of Comparative Law of the Bar Association. (Read by PHANOR J. EDER.)

TUESDAY AFTERNOON, JANUARY 4, 1916—2 O'CLOCK.

Second Session of the Subsection on Jurisprudence.

SHOREHAM HOTEL.

EUGENE WAMBAUGH, *Chairman.*

The International Manifestations of Law: Its Needs and Its Possibilities from the American Standpoint.
JOHN H. WIGMORE, Dean of the Law Faculty of Northwestern University. (Read by GEORGE H. BOKE.)

Judicial Organization with Special Reference to the Nomination or Election of Judges; Organization and Functions of the Minor Judiciary.
ANDRÉS J. MONTOLÍO, Associate Justice of the Supreme Court of the Dominican Republic.

How May Lawyers of One Country be Most Easily and Effectively made Acquainted with the Laws of Another Country?
EDWIN B. BORCHARD, Librarian of the United States Supreme Court Library.

A Study in Mexican Law.
THOMAS W. PALMER, Jr., of the Alabama Bar.

Papers reported:

Judicial Organization with Special Reference to the Appointment of Judges. Organization and Functions of the Courts of Justice of First Instance.
ALFREDO ALMEIDA DE RUSSELL, Brazil.

Delicte Juvenil.
ALFREDO BALTHAZAR DA SILVEIRA, Brazil.

WEDNESDAY MORNING, JANUARY 5, 1916—10 O'CLOCK.

Pan American Conference.

SHOREHAM HOTEL.

CHARLES NOBLE GREGORY, *Chairman.*

How Can the People of the American Countries Best be Impressed with the Duties and Responsibilities of the State in International Law?
Excmo. Sr. JUAN DE DIOS GARCÍA KOHLY, Envoy Extraordinary and Minister Plenipotentiary of Cuba to the Netherlands.

Mission of the American Institute of International Law.
ANTOLÍN IRALA, Professor of International Law in the University of Paraguay.

Pan Americanism in the Light of the Traditional Policy of Argentina.
ENRIQUE GIL, Delegate of the National University of Buenos Aires, Argentina.

Are There Specific American Problems of International Law?
LEO S. ROWE, Professor of Political Science in the University of Pennsylvania. (Read by ALEJANDRO ÁLVAREZ of Chile.)
JOHN FOSTER DULLES, of the New York Bar.

Papers reported:

MANUEL TAVARES CAVALCANTI, Parahiba, Brazil.

CHRYSANTO FREIRE DE BRITO, Member of the Brazilian Society of International Law.

M. CASTRO RAMÍREZ, Salvador, President of the Central American Court of Justice.

LUIS ALFREDO OTERO, of Colombia.

THURSDAY MORNING, JANUARY 6, 1916—10 O'CLOCK.

Pan American Conference—Continued.

SHOREHAM HOTEL.

CHARLES NOBLE GREGORY, *Chairman.*

New Orientations in the Study of International Law.

ALEJANDRO ÁLVAREZ, Counselor for the Legations of Chile in Europe.

The Study of International Law in American Countries, and Means by Which it May be Made More Effective.

JOSÉ MATOS, Professor of International Law in the Faculty of Law and Notarial Practice of Guatemala.

Should International Law be Codified? And if so, Should it be Done through Governmental Agencies or by Private Scientific Societies?

ALONSO REYES GUERRA, Member of the Permanent Court of Arbitration at The Hague, formerly Professor of International Law, San Salvador, Salvador.

Paraguay and America.

JUAN F. PÉREZ, Institute of Paraguay.

The Attitude of American Countries Toward International Arbitration and the Peaceful Settlement of International Disputes.

BENITO JAVIER PÉREZ-VERDÍA, formerly Secretary of the Mexican Legation at Guatemala.

Papers reported:

The Drago Doctrine; Its Importance in American International Law.

ERNESTO RESTELLI, of Argentina.

The Diplomatic History of Brazil in the Sixteenth and Seventeenth Centuries.

A. G. DE ARAUJO-JORGE, of the Foreign Office of Brazil.

FRIDAY MORNING, JANUARY 7, 1916—10 O'CLOCK.

Closing Session of Section VI.

SHOREHAM HOTEL.

JAMES BROWN SCOTT, *Chairman.*

The Great European War and the Neutrality of Chile, by Alejandro Alvarez.
EDUARDO SARMIENTO LASPIUR, Professor of International Law and Diplomacy in the Universities of Buenos Aires and La Plata.

A Study of the Jury System of Ecuador.
VICTOR M. PEÑAHERRERA, Professor in the School of Law, Central University of Quito, Ecuador.

SECTION VII.—MINING, METALLURGY, ECONOMIC GEOLOGY, AND APPLIED CHEMISTRY.

HENNEN JENNINGS, *Chairman.*
ALBERT H. FAY, *Secretary.*
ANTONIO LLANO, *Corresponding Secretary.*

Subsection 1.—Mining.
Subsection 2.—Metallurgy.
Subsection 3.—Economic Geology.
Subsection 4.—Applied Chemistry.

TUESDAY MORNING, DECEMBER 28, 1915—9.30 O'CLOCK.

ANTEROOM TO BANQUET HALL, RALEIGH HOTEL.

HENNEN JENNINGS, *Chairman.*

Opening address by Hon. FRANKLIN K. LANE, Secretary, Department of the Interior, Washington, D. C.

The Relation of Mining to the Pan American Countries, with Special Reference to the Mineral Resources of Peru.

His Excellency the Peruvian Minister, F. A. PEZET, Washington, D. C.

The Value of Technical Societies to Mining Engineers.

R. W. RAYMOND, Secretary Emeritus, American Institute of Mining Engineers, New York, N. Y.

TUESDAY AFTERNOON, DECEMBER 28, 1915—2.30 O'CLOCK.

Section VII as a Whole.

ANTEROOM TO BANQUET HALL, RALEIGH HOTEL.

C. E. MUNROE, *Chairman.*
ENRIQUE CUEVAS, *Honorary Chairman.*

Lifting Ground Waters by Compressed Air.

W. L. SAUNDERS, President, American Institute of Mining Engineers, New York, N. Y.

The Nitrate Industry of Chile.

ENRIQUE CUEVAS, Counselor of the Chilean Embassy, Washington, D. C.

Uniform Methods of Analysis.

W. F. HILLEBRAND, Chief Chemist, United States Bureau of Standards, Washington, D. C.

TUESDAY NIGHT, DECEMBER 28, 1915—8.30 O'CLOCK.

Joint Session Sections III, V, and VII.

PAN AMERICAN UNION HALL.

W. L. SAUNDERS, *Chairman.*
TULIO OSPINA, *Honorary Chairman.*

The Functions of Foods in Securing National Efficiency.

H. W. WILEY, Chemist, former President, American Chemical Society. (Section VII, Subsection 4, Chemistry.)

Conservation of Human Life.

T. N. CARVER, Harvard University, Cambridge, Mass. (Section III, Subsection 1, Conservation.)

Engineering and Other Scientific Work of the Office of Public Buildings and Grounds.

Col. WILLIAM W. HARTS, Washington, D. C. (Section V, Engineering).

WEDNESDAY MORNING, DECEMBER 29, 1915—9.30 O'CLOCK.

Joint Session of Subsection 1 (Mining) and Section III, Subsection 1 (Conservation).

ENGLISH ROOM, RALEIGH HOTEL.

VAN. H. MANNING, *Chairman.*
I. C. WHITE, *Honorary Chairman.*

Methods and Costs of Obtaining Crude Petroleum.

THOMAS COX, Consulting Engineer, Oakland, Cal.

Legal and Economic Factors in the Conservation of Oil and Gas.

ROSWELL H. JOHNSON, University of Pittsburgh, Pittsburgh, Pa. (Section III, Subsection 1, Conservation.)

Extent, Mode of Occurrence, and Probable Yield of the Petroleum Fields of Argentina.

E. M. HERMITTE, Director of the Department of Mines, Buenos Aires, Argentina.

Subsection 3 (Geology).

Delegates invited to attend meeting of the Geological Society of America, George Washington Medical School, 1325 H Street.

Subsection 4 (Applied Chemistry).

PRIVATE DINING ROOM, RALEIGH HOTEL.

C. E. MUNROE, *Chairman.*
CHARLES BASKERVILLE, *Honorary Chairman.*

Tanning Materials from Native Sources in Latin American Countries.

THOMAS H. NORTON, Department of Commerce, Washington, D. C.

Dyestuffs from Materials Native to Latin American Countries.

SAMUEL P. SADTLER, Philadelphia, Pa.

The Benzine Ring.

ANÍBAL CHACÓN, Buenos Aires, Argentina.

WEDNESDAY AFTERNOON, DECEMBER 29, 1915—2.30 O'CLOCK.

Joint Session Subsection 3 (Geology) and Subsection 1 (Mining).

ANTEROOM TO BANQUET HALL, RALEIGH HOTEL.

GEORGE OTIS SMITH, *Chairman.*

The Coals of the United States.

M. R. CAMPBELL, Geologist, United States Geological Survey, Washington, D. C.

The Coals of Brazil.

I. C. WHITE, State Geologist, Morgantown, W. Va.

Mineral Production of the Various Latin American Countries.

G. A. ROUSH, Editor, Mineral Industry, South Bethlehem, Pa.

Mining in Ecuador.

J. W. MERCER, General Manager, South American Development Company, New York, N. Y.

Sketch of the Mineral Resources of Venezuela.

GERMÁN JIMÉNEZ, Caracas, Venezuela.

Joint Session of Subsections 2 and 4 (Applied Chemistry).

PRIVATE DINING ROOM, RALEIGH HOTEL.

C. E. MUNROE, *Chairman.*
CHARLES BASKERVILLE, *Honorary Chairman.*

Drying Oils Produced in the Americas.
H. A. GARDNER, Institute of Industrial Research, Washington, D. C.

Paints for Tropical Climates.
MAXIMILIAN TOCH, Chemist, New York, N. Y.

Extent and Possible Development of the Borax Deposits of Argentina.
E. M. HERMITTE, Director of the Department of Mines, Buenos Aires, Argentina.

The Electric Furnace in Metallurgy.
JOSEPH W. RICHARDS, Professor of Metallurgy, Lehigh University.

The Iron Mines of Cuba and the Methods of Preparing their Ore.
J. E. LITTLE, Mechanical Engineer, Felton, Cuba.

THURSDAY MORNING, DECEMBER 30, 1915—9.30 O'CLOCK.

Joint Session of Subsection 3 (Geology) and Section III (Conservation).

ENGLISH ROOM, RALEIGH HOTEL.

M. R. CAMPBELL, *Chairman.*

Petroleums and Asphalts in the United States.
E. W. SHAW, Geologist, United States Geological Survey, Washington, D. C. (Section VII, Subsection 3.)

Conservation of the Oil and Gas Resources of the Americas.
RALPH ARNOLD, Consulting Geologist and Engineer, Los Angeles, Cal. (Section II, Subsection 1, Conservation.)

The Petroleum Resources of Mexico.
D. T. DAY, Consulting Chemist, United States Bureau of Mines, Washington, D. C. (Section VII, Subsection 3.)

Petroleum Resources of Ecuador.
C. D. ANDRADE, Official Delegate from Ecuador.

The Migration of Oil Through Small Fissures and Faults.
CASSIUS A. FISHER, Consulting Geologist, Denver, Colo.

Subsection 4 (Applied Chemistry).

ROOM B, RALEIGH HOTEL

C. E. MUNROE, *Chairman.*
W. P. MASON, *Honorary Chairman.*

The Value of Scientific Research and Laboratory Control in the Manufacture of Foods.
W. D. BIGELOW, Washington, D. C.

The Preservation of Foodstuffs.
CARL L. ALSBERG, Chief, Bureau of Chemistry, Department of Agriculture, Washington, D. C.

Toxicological Analyses of Mercury.
CARLOS RENSON, San Salvador, Salvador.

THURSDAY AFTERNOON, DECEMBER 30, 1915—2.30 O'CLOCK.

Joint Sessions Subsections 2 (Metallurgy) and 3 (Geology).

PRIVATE DINING ROOM, RALEIGH HOTEL.

GEORGE OTIS SMITH, *Chairman.*
TULIO OSPINA, *Honorary Chairman.*

Metallurgical Practices at the Tin Mines of Bolivia.
SCOVILL E. HOLLISTER, Mill Superintendent, Compañia Estanífera, Llallagua, Bolivia.

Bolivian Tin.
HOWLAND BANCROFT, Mining Geologist, Denver, Colo.

The Occurrence and Preparation of Radium and Associated Metals. (Illustrated by lantern slides and motion pictures, showing work of Bureau of Mines.)
CHARLES L. PARSONS, Chief Mineral Technologist, United States Bureau of Mines, Washington, D. C.

Radioactive Minerals of Brazil.
LUIS BETIM PAES LEME.

General and Economic Geology of Colombia.
TULIO OSPINA, Mining Engineer, Medellín, Colombia.

Cement Production in the United States.
E. C. ECKEL, Consulting Engineer, Washington, D. C.

Geological Sketch of the Department of Cundinamarca.
R. LLERAS CODAZZI, Bogotá, Colombia.

General Geology of El Salvador and its Relations to Mining.
LUIS FLEURY, San Salvador, Salvador.

Subsection 4 (Applied Chemistry).

OAK ROOM, RALEIGH HOTEL.

C. E. MUNROE, *Chairman.*
H. B. MCDONNELL, *Honorary Chairman.*

Rubber.
PERCY H. WALKER, Bureau of Standards, Washington, D. C.

Chemical Research as a Directing Aid in the Efficient Utilization of Pine Forests. (Illustrated.)
C. H. HERTY, President American Chemical Society, Chapel Hill, N. C.

Subsection 1 (Mining) and Section III (Conservation).

ROOM A, RALEIGH HOTEL.

VAN. H. MANNING, *Chairman.*

Mining Costs and Selling Prices of Coal in the United States and Europe with Special Reference to Export Trade.
GEORGE S. RICE, Chief Mining Engineer, United States Bureau of Mines, Pittsburgh, Pa.

The Copper Mining Industry in the Americas.
WALTER HARVEY WEED, Geologist and Mining Engineer, New York, N. Y.

Mining, Metallurgy, and Economic Geology of Salvador.
LUIS FLEURY, San Salvador, El Salvador.

The Conservation of Copper.
W. H. EMMONS, State Geologist of Minnesota, University of Minnesota.

The Conservation of Metals by the Recovery of Scrap or Used Metals.
J. P. DUNLOP, United States Geological Survey.

The Possibility of Treating by the Cyanide Process the Complex Silver or Silver-Gold Ores of the Latin American Republics.
G. H. CLEVENGER, Metallurgist, Palo Alto, Cal.

Cyaniding in South America.
H. A. MEGRAW, Editorial Staff, Engineering and Mining Journal, New York, N. Y.

Metallurgy of Native Silver Ores in Southwestern Chihuahua.
WALTER M. BRODIE, Mining Engineer and Metallurgist, The Batopilas Mining Company, New York, N. Y.

Concentration and Metallurgy at the San Antonio Mines.
MIGUEL CALLEJAS, Director of the Mining Society, San Antonio de Oriente, Honduras.

Concentration by Flotation.
F. G. FUCHS, Lima, Perú.

FRIDAY MORNING, DECEMBER 31, 1915—9.30 O'CLOCK.

Joint Session, Sections V, IV (Subsection 6), and VII.

PRIVATE DINING ROOM, RALEIGH HOTEL.

GARDNER C. ANTHONY, *Chairman.*

The Influence of Technical Journals upon Engineering Education.
T. A. RICKARD, Editor, Mining and Scientific Press, San Francisco, Cal. (Section IV, Subsection 6, Educational Engineering.)

The United States Bureau of Mines.
VAN H. MANNING, Director, United States Bureau of Mines, Washington, D. C. (Section VII, Subsection 1.)

Engineering Nomenclature.
A. O. SMITH. (Section V.)

Engineering Education in the United States.
CHARLES S. HOWE, President, Case School of Applied Science, Cleveland, Ohio. (Section IV, Subsection 6.)

FRIDAY AFTERNOON, DECEMBER 31, 1915—2.30 O'CLOCK.

Joint Session Sections III and VII.

SMALL BANQUET HALL, RALEIGH HOTEL.

JAMES F. CALLBREATH, Secretary, American Mining Congress, Washington, D. C., *Chairman.*

Mine Accidents and Uniform Records.

ALBERT H. FAY, Mining Engineer, United States Bureau of Mines, Washington, D. C. (Section III, Subsection 1, Conservation.)

Uniformity in Collection of Statistics of Mineral Production.

EDWARD W. PARKER, Director of the Anthracite Bureau of Information, Wilkes-Barre, Pa. (Section VII, Subsection 1.)

Mine-rescue Work.

J. W. PAUL, Mining Engineer, United States Bureau of Mines, Pittsburgh, Pa. (Section III, Subsection 1, Conservation.)

Improved Mining and Metallurgical Methods as an Aid to Conservation.

L. D. RICKETTS, Mining and Metallurgical Engineer, New York, N. Y. (Section VII, Subsection 1.)

MONDAY MORNING, JANUARY 3, 1916—9.30 O'CLOCK.

Section VII as a Whole.

SMALL BANQUET HALL, RALEIGH HOTEL.

VAN. H. MANNING, *Chairman.*
TULIO OSPINA, *Honorary Chairman.*

Buying and Selling of South American Nonferrous Metals.

L. VOGELSTEIN, Metal Merchant, New York, N. Y.

The Public Interest in Mineral Resources.

GEORGE OTIS SMITH, Director, United States Geological Survey, Washington, D. C.

The Interrelations of Pure and Applied Chemistry.

F. W. CLARKE, Chemist, United States Geological Survey, Washington, D. C.

MONDAY AFTERNOON, JANUARY 3, 1916—2.30 O'CLOCK.

Section VII as a Whole.

SMALL BANQUET HALL, RALEIGH HOTEL.

GEORGE OTIS SMITH, *Chairman.*
TULIO OSPINA, *Honorary Chairman.*

Gold and Silver in the Western Hemisphere.
WALDEMAR LINDGREN, Geologist, Massachusetts Institute of Technology, Boston, Mass.

The American Mining Congress and its Work.
CARL SCHOLZ, President, American Mining Congress, Chicago, Ill.

Assaying in the United States Mint Service.
R. W. WOOLLEY, Director, United States Mint, Washington, D. C.

The Storage and Handling of Explosives in Mines.
C. E. MUNROE, Dean, Graduate Studies, George Washington University, Washington, D. C.

TUESDAY MORNING, JANUARY 4, 1916—9.30 O'CLOCK.

Joint Session Subsection 1 (Mining), Subsection 2 (Metallurgy), and Subsection 3 (Geology).

ROOM A, RALEIGH HOTEL.

GEORGE OTIS SMITH, *Chairman.*

Recent Progress in Electrical Smoke Precipitation.
F. G. COTTRELL, Chief Chemist, United States Bureau of Mines, Washington, D. C.

Coal-dust Firing in Reverberatories.
C. R. KUZELL, Anaconda Copper Mining Company, Anaconda, Mont.

Organization and Cost of Geological Surveys.
DAVID WHITE, Chief Geologist, United States Geological Survey.

Report on the Mineral Resources of Uruguay.
ROLF MARSTRANDER, Mining Engineer, Montevideo, Uruguay.

Age of Peruvian Fossils.
C. I. LISSON, Lima, Peru.

Subsection 4—9.30 O'Clock.

ROOM C, RALEIGH HOTEL.

C. E. MUNROE, *Chairman.*
W. P. MASON, *Honorary Chairman.*

The Determination of Active Oxygen in Washing Perborates.
A Contribution to the Study of Coloring Lakes.
P. B. GUGGIARI, Professor of Chemistry, University of Paraguay, Asunción, Paraguay.

Explosives for Use in Industrial and Commercial Development.
C. E. MUNROE, Dean, Graduate Studies, George Washington University, Washington, D. C.

Recent Development in Water Purification and Sewage Disposal.
W. P. MASON, Rensselaer Polytechnic Institute, Troy, N. Y.

Pharmaceutical Products Made from Materials Native to Latin America.
A. R. D. DOHME, Chemist, Baltimore, Md.

A Simple, Efficient, and Economic Filter; Its Application to the Filtration of the Yellow Precipitate in Phosphoric-acid Estimations.
S. L. JODIDI, Organic Chemist, United States Department of Agriculture, Washington, D. C.

TUESDAY AFTERNOON, JANUARY 4, 1916—2.30 O'CLOCK.

Joint Session Subsections 1, 2, and 3 of Section VII with Subsection 1 of Section III.

OAK ROOM, RALEIGH HOTEL.

M. R. CAMPBELL, *Chairman.*

Fuel Situation in the Andean Plateau.
BENJAMIN L. MILLER, Professor of Geology, Lehigh University, South Bethlehem, Pa., and JOSEPH T. SINGEWALD, Jr., Associate, Economic Geology, Johns Hopkins University, Baltimore, Md. (Section VII, Subsection 1.)

Practical Difficulties in Conserving our Coal Supply.
J. S. BURROWS, Norfolk Va. (Section III, Subsection 1.)

Saving of Coal through Employment of Better Methods of Mining.
FRANK HAAS, Assistant General Manager, Fairmont Coal Company, Fairmont, W. Va. (Section III, Subsection 1.)

Metallurgy at Braden.

BERNARD T. COLLEY, Superintendent, Braden Copper Company, and ROSS E. DOUGLAS, Mining Engineer, Braden Copper Company, New York, N. Y. (Section VII, Subsection 2.)

Metallurgical Operations at Chuquicamata.

E. A. ROSE, Metallurgist, American Smelting & Refining Company, New York, N. Y. (Section VII, Subsection 2.)

Recent Progress in Metallurgical Practice in Peru.

MIGUEL FORT, Mining Engineer, Lima, Peru. (Section VII, Subsection 2.)

Conservation of Phosphate Rock in the United States.

W. C. PHALEN, Geologist, United States Geological Survey, Washington, D. C. (Section VII, Subsection 3.)

Phosphate Resources of the United States. (Illustrated.)

GEORGE R. MANSFIELD, Geologist, United States Geological Survey, Washington, D. C. (Section VII, Subsection 3.)

Subsection 4.

ROOM D, RALEIGH HOTEL.

C. E. MUNROE, *Chairman.*
W. P. MASON, *Honorary Chairman.*

Action of Sulphate of Manganese in Wine Fermentation.

JUAN B. LARA, Professor of Chemistry, University of Mendoza, Mendoza, Argentina.

The Application of the Paper Pulp Filter to the Quantitative Estimation of Calcium and Magnesium.

S. L. JODIDI, Organic Chemist, United States Department of Agriculture, Washington, D. C.

Rittman Process.

W. RITTMAN, Chemical Engineer, United States Bureau of Mines, Pittsburgh, Pa.

Standard Methods for Analyzing Coal and Coke.

A. C. FIELDNER, Chemist; G. S. POPE, Engineer; and J. D. DAVIS, Chemist, United States Bureau of Mines, Washington, D. C.

WEDNESDAY MORNING, JANUARY 5, 1916—9.30 O'CLOCK.

Pan American Topics (Metallurgy and Applied Chemistry).

OAK ROOM, RALEIGH HOTEL.

BRADLEY STOUGHTON, *Chairman.*

Ore Dressing.

R. H. RICHARDS, Massachusetts Institute of Technology, Boston, Mass.

Genesis of Chilean Nitrate Deposits.

J. T. SINGEWALD, Jr., Associate Economic Geologist, Johns Hopkins University, Baltimore, Md., and BENJAMIN L. MILLER, Lehigh University, South Bethlehem, Pa.

Consideration of resolutions.

THURSDAY MORNING, JANUARY 6, 1916—9.30 O'CLOCK.

Pan American Topics (Mining and Geology).

OAK ROOM, RALEIGH HOTEL.

GEORGE S. RICE, *Chairman.*

Mining Laws of Panama.

J. F. SÁNCHEZ, Panama City, Panama.

The Mining Code of Chile.

JULIO FOSTER, Santiago, Chile.

Mining Laws of Colombia.

PHANOR J. EDER, New York, N. Y.

Mining Laws of the United States.

J. W. THOMPSON, Law Examiner, United States Bureau of Mines, Washington, D. C.

Recent Contributions to the Geology of Brazil, and their Relations to the Development of the Country.

J. C. BRANNER, President, Leland Stanford University, Stanford University, Cal.

Consideration of resolutions.

FRIDAY MORNING, JANUARY 7, 1916—9.30 O'CLOCK.

Section VII as a Whole.

PRIVATE DINING ROOM, RALEIGH HOTEL.

GARDNER F. WILLIAMS, *Chairman.*

The Petroleum Industry of Peru in 1915.
R. A. DEUSTUA, Mining Engineer, Lima, Peru.

Data for the History of Mining in Guatemala.
MANUEL LEMUS, Guatemala.

A Contribution to the Study of the Earth and the Remarkable Parallelism of the Earth's Mountain System. (Paper to be presented by Don Rafael Guirola.)
LUIS MATAMOROS SANDOVAL, Civil Engineer, San José, Costa Rica.

The Prospect for Marketing South American Zinc Ores.
W. R. INGALLS, President of Mining and Metallurgical Society, and Editor, Engineering and Mining Journal, New York, N. Y.

Lead and Zinc in the United States.
C. E. SIEBENTHAL, Geologist, United States Geological Survey, Washington, D. C.

Iron Ore Deposits of the Americas.
CHARLES C. K. LEITH, Professor, Economic Geology, University of Wisconsin, Madison, Wis.

FRIDAY AFTERNOON, JANUARY 7, 1916—2.30 O'CLOCK.

Section VII as a Whole.

GREEN ROOM, RALEIGH HOTEL.

W. R. INGALLS, *Chairman.*
TULIO OSPINA, *Honorary Chairman.*

Mining, the Pioneer of Intimate Commercial Relations.
F. F. SHARPLESS, Secretary, Mining and Metallurgical Society, New York, N. Y.

Value of Mining Property.
J. R. FINLAY, Mining Engineer, New York, N. Y.

Development Work and Mining Operations of the Chile Exploration Company.

POPE YEATMAN, Mining Engineer, New York, N. Y.

History and Development of Gold Dredging in Montana. (Illustrated with lantern slides and motion pictures.)

HENNEN JENNINGS, Mining Engineer, Washington, D. C.

Placer Mining Methods and Operating Costs.

CHARLES JANIN, Mining Engineer, Bureau of Mines, San Francisco, Cal.

SECTION VIII.—PUBLIC HEALTH AND MEDICAL SCIENCE.

Surg. Gen. WILLIAM C. GORGAS, *Chairman.*
Col. JOHN VAN R. HOFF, *Vice Chairman.*
Maj. EUGENE R. WHITMORE, *Secretary.*
ARTURO L. GUERRA, M. D., *Corresponding Secretary.*

Subsection A.—Public Health.
Subsection B.—Vital Statistics.
Subsection C.—Sociological Medicine.
Subsection D.—Sanitation.
Subsection E.—Laboratory Conferences.

TUESDAY MORNING, DECEMBER 28, 1915—9 O'CLOCK.

SECTION HEADQUARTERS AND ALL SECTION MEETINGS AT THE NEW EBBITT HOTEL.

First General Session of Section VIII.

SECTION ROOM, NEW EBBITT HOTEL.

Surg. Gen. WILLIAM C. GORGAS, *Chairman.*

Address of Welcome, Surg. Gen. WILLIAM C. GORGAS.

Problems of Insect-borne Diseases in Pan America.
JUAN GUITERAS, Director of Health of Cuba, Professor of General Pathology and Tropical Diseases in the University of Habana.

Immunity to Yellow Fever.
H. R. CARTER, United States Public Health Service, Baltimore, Md.

The Occurrence of Filariasis in Pan America.
A. J. SMITH, University of Pennsylvania, Philadelphia, Pa.

TUESDAY AFTERNOON, DECEMBER 28, 1915—2 O'CLOCK.

Second General Session of Section VIII.

SECTION ROOM, NEW EBBITT HOTEL.

Col. JOHN VAN R. HOFF, *Chairman.*

Parasitic Diseases in the American Tropical Countries.
DÁMASO RIVAS, Nicaragua.

The Eradication of Typhus Fever in Serbia.
R. P. STRONG, Professor, Harvard University, Cambridge, Mass.

Infectious Diseases in the Prison Camps of Europe.
B. W. CALDWELL.

Review of the Present Yellow Fever Situation.
A. AGRAMONTE, Professor of Bacteriology and Pathology, University of Habana, Cuba.

Carlos Finlay, on the House-mosquitoes of Habana.
F. KNAB, Bureau of Entomology, Department of Agriculture, Washington, D. C.

Dr. Liceaga and Yellow Fever.
Maj. T. C. LYSTER, United States Army.

Eradication of Yellow Fever from the State of Sao Paulo
E. RIBAS, Brazil.

Human Blastomycosis in Peru and Bolivia
E. ESCOMEL, Perú.

Present Views in Respect to Modes and Periods of Infection in Tuberculosis.
M. P. RAVANEL, University of Missouri, Columbia, Mo.

Typhoid Fever in Bolivia.
N. MORALES, Bolivia.

Prophylaxis of Typhoid Fever by Means of Vaccination.
J. F. GONZÁLEZ, Uruguay. (Presented by L. E. MIGONE, Paraguay.)

Fruit Fever.
C. MATHON, Haiti.

La Buba (Leishmaniosis Americana).
L. E. MIGONE, Paraguay.

WEDNESDAY MORNING, DECEMBER 29, 1915—9 O'CLOCK.

Third General Session of Section VIII.

WHITE PARLOR, NEW EBBITT HOTEL.

Surg. Gen. WILLIAM C. GORGAS, *Chairman.*

Alcohol and Drug Prophylaxis.
HARVEY W. WILEY, Good Housekeeping Magazine, Washington, D. C.

Maconha Smokers—Effects and Evils of the Habit.
JOSÉ RODRIGUEZ DA COSTA DORIA, Bahia, Brazil.

The Problems of Alcoholism and its Possible Solution.
LUIS LÓPEZ MESA, Bogotá, Colombia.

Causes of Crime.
R. B. VON KLEINSMID, President University of Arizona, Tucson, Ariz.
RICARDO SARMIENTO LASPIUR, Buenos Aires, Argentina.

Pauperism.
EDWARD T. DEVINE, Director New York School of Philanthropy, New York City.

WEDNESDAY AFTERNOON, DECEMBER 29, 1915.

Fourth General Session.

WHITE PARLOR, NEW EBBITT HOTEL.

Col. JOHN VAN R. HOFF, *Chairman.*

Humanity's Poison.
ANTONIO VALETA, Montevideo, Uruguay.

Repression of Alcoholism.
ATILIO NARANCIO, Montevideo, Uruguay.

Mechanical Appliances in the Treatment of Pyorrhea.
FELIPE GALLEGOS, Secretary of the Faculty of Dental Surgery, San José, Costa Rica.

Buccal Flora and Fauna. (Lantern-slide demonstration.)
TOMÁS S. VARELA, Buenos Aires, Argentina.

Care of the Baby.
ATILIO NARANCIO, Montevideo, Uruguay.

Milk Dispensaries as a Means of Diminishing Infantile Mortality.
JULIO A. BAUZÁ, Montevideo, Uruguay.

Modern Methods for the Prevention of Infantile Mortality. (Lantern-slide demonstration.)
ARTURO L. GUERRA, on the staff of the Washington Diet Kitchen Association, Washington, D. C.

An Essential Mistake of Person in the Law of Civil Marriage of Brazil.
JOSÉ RODRÍGUEZ DA COSTA DORIA, Bahia, Brazil.

A Study on the Treatment of Puerperal Infection by the Use of Prolonged Luke-warm Baths.
A. FIALLO CABRAL, Professor of Pathology and Bacteriology, Central University of Santo Domingo.

Naturalism in the Home.
ANTONIO VALETA, Montevideo, Uruguay.

Respiratory Action of the Depressor Cordis.
TEODORO MUHM, Santiago, Chile.

Prophylaxis of Ophidism in America. (Motion-picture demonstration.)
VITAL BRASIL, Sao Paulo, Brazil.

Autosangotherapy in Leprosy.
L. ZANOTTI-CAVAZZONI, Asunción, Paraguay. (Read by L. E. MIGONE, Asuncion, Paraguay.)

WEDNESDAY AFTERNOON, DECEMBER 29, 1915—2.30 O'CLOCK.

Joint Session of Section VIII (Subsection C) with the American Association for Labor Legislation.

THE LODGE, SHOREHAM HOTEL.

Dangerous Trades and the Bearings of Industry upon Medicine.
DAVID L. EDSALL, Harvard Medical School, Boston, Mass.

Child Labor and Public Health.
OWEN R. LOVEJOY, General Secretary National Child Labor Committee, New York City.

Employment of Married and Pregnant Women and the Protection and Promotion of the Health of Female Wage Earners.

JOHN B. ANDREWS, Secretary American Association for Labor Legislation.

AUGUSTO TURENNE, Montevideo, Uruguay.

Factory Sanitation.

E. R. HAYHURST, Ohio State Board of Health, Columbus, Ohio.

THURSDAY MORNING, DECEMBER 30, 1915—9 O'CLOCK.

Fifth General Session of Section VIII.

WHITE PARLOR, NEW EBBITT HOTEL.

Surg. Gen. WILLIAM C. GORGAS, *Chairman.*

The Etiology and Prevention of Tuberculosis from the Sociological Point of View.

WILLIAM CHARLES WHITE, Associate Professor of Medicine, Pittsburgh University, Pittsburgh, Pa.

The Treatment of Tuberculosis by the Operation of Artificial Pneumothorax.

J. DE OLIVEÍRA BOTELHO, Rio de Janeiro, Brazil.

Housing of Wage Earners.

LAWRENCE VEILLER, Director of National Housing Company, New York City.

Hygiene of Habitations.

JUAN DE MONTEVERDE, Montevideo, Uruguay.

Hygiene and Medical Inspection of Schools—Medical Inspection in the Schools of Costa Rica.

LUIS SCHAPIRO, San José, Costa Rica.

THURSDAY MORNING, DECEMBER 30, 1915—10 O'CLOCK.

Joint Session Subsection B with the American Statistical Association.

RALEIGH HOTEL.

E. DANA DURAND, *Chairman.*

The Nature and Significance of the Changes in the Birth and Death Rates in Recent Years.

WALTER F. WILLCOX, Cornell University, Ithaca, N. Y.

The Influence of Vital Statistics upon the Conservation of Human Life.
W. S. RANKIN, Secretary of the State Board of Health, Raleigh, N. C.

The Relation of Sickness Reports to Health Administration.
JOHN W. TRASK, United States Public Health Service.

Vital Statistics in Relation to Life Insurance.
LOUIS I. DUBLIN, Statistician Metropolitan Life Insurance Company, New York City.

Statistics of Infant Mortality.
LEWIS MERIAM, Bureau of Municipal Research, New York City.

Joint Session Subsection D with the American Civic Association.

WILLARD HOTEL.

Town and City Planning.
FREDERICK L. OLMSTED, Architect, Brookline, Mass.

The Human Side of City Planning.
J. HORACE MCFARLAND, President of American Civic Association, Harrisburg, Pa.

The Effect of Land Subdivision. (Lantern-slide demonstration.)
JOHN NOLEN, Landscape Architect, Cambridge, Mass.

Town and City Planning.
JOHN N. HURTY, State Board of Health, Indianapolis, Ind.

City Planning Administration.
RICHARD B. WATROUS, Secretary of American Civic Association, Washington, D. C.

THURSDAY AFTERNOON, DECEMBER 30, 1915—2 O'CLOCK.

Joint Session Subsection B with the American Statistical Association.

RALEIGH HOTEL.

JOSEPH A. HILL, *Chairman.*

The Federal Registration Service of the United States: Its Development, Problems, and Defects.
CRESSY L. WILBUR, Director, Division of Vital Statistics, State Department of Health, Albany, N. Y.

Vital Statistics.

WILMER R. BATT, State Register of Vital Statistics, Harrisburg, Pa.

The Incidence of the Different Causes of Mortality in Providence, R. I.

CHARLES V. CHAPIN, Superintendent of Public Health, Providence, R. I.

Vital Statistics with Special Reference to New York City. (Lantern-slide demonstration.)

WILLIAM H. GUILFOY, Registrar of Records, New York City.

Five Years of Demographic Records in Uruguay.

JOAQUÍN DE SALTERAIN.

Development of Demographic Statistics in Cuba.

JORGE LE-ROY Y CASSÁ.

The Accuracy and Completeness of Compiled Vital Statistics in the United States.

JOHN S. FULTON, Secretary of State Board of Health, Baltimore, Md.

THURSDAY AFTERNOON, DECEMBER 30, 1915—2 O'CLOCK.

Sixth General Session of Section VIII.

WHITE PARLOR, NEW EBBITT HOTEL.

GEORGE M. KOBER, *Chairman.*

Medical and Social Problems of Venereal Diseases.

EDWARD L. KEYES, Jr., New York City. (Read by WILLIAM F. SNOW.)

Sexual Education of Young Men as a Prophylactic Measure Against Venereal Diseases.

ALFREDO PÉRSICO, Montevideo, Uruguay.

Suggested Ordinance for the Regulation of Prostitution.

SILVESTRE OLIVA, Buenos Aires, Argentina.

Public Health Measures in Relation to Venereal Diseases.

WILLIAM F. SNOW, General Secretary American Social Hygiene Association, New York City.

International Agreements in Relation to the Suppression of Vice.

JAMES B. REYNOLDS, American Social Hygiene Association, New York City.

FRIDAY MORNING, DECEMBER 31, 1915—9 O'CLOCK.

Joint Session Subsection C with the American Sociological Society.

RALEIGH HOTEL.

Surg. Gen. WILLIAM C. GORGAS, *Chairman.*

Social Medicine and the Work Problems in the Argentine Republic.

ENRIQUE FEINMANN. (Paper presented by SARMIENTO LASPIUR, Surgeon of the Fernandez Hospital; Secretary General of Public Sanitation; Professor, International University of Buenos Aires, Argentina.)

Influence of Ankilostomiasis upon Agriculture and Infantile Mortality in Costa Rica.

LUIS SCHAPIRO, Assistant Director of the Ankilostomiasis Department, San José, Costa Rica, in collaboration with MAURO FERNÁNDEZ, Assistant Director of the Rockefeller Foundation in Costa Rica.

Ways and Means of Bringing Matters of Public Health to Social Usefulness:

(*a*) *Sources of Information, Statistics, Health Reports, Municipal and State Surveys.*

(*b*) *Preparation of Legislative Measures—Committee Hearings, etc.*

(*c*) *Publicity Avenues and Methods, Use of Existing Organizations, New Organizations, Press, etc.*

WILLIAM C. WOODWARD, Washington, D. C.

What Can Unofficial Effort do for Public Health?

IRVING FISHER, Yale University, New Haven, Conn.

HAYES E. DEARHOLT, University of Wisconsin, Madison, Wis.

FRIDAY AFTERNOON, DECEMBER 31, 1915—2 O'CLOCK.

Seventh General Session of Section VIII.

WHITE PARLOR, NEW EBBITT HOTEL.

Surg. Gen. WILLIAM C. BRAISTED, *Chairman.*

Buildings for Human Occupancy.

ROBERT W. DE FOREST, National Housing Association, New York City.

The Means by which Infectious Diseases are Transmitted, and Their Extermination.
ALVAH H. DOTY, New York City.

Medical Preparedness in Campaign.
Lieut. Col. E. L. MUNSON, Medical Department, United States Army.

Artificial Illumination.
J. D. GATEWOOD, United States Naval Medical School, United States Navy, Washington, D. C.

Sanitary Work on the Panama Canal. (Lantern-slide demonstration.)
D. S. REEDER, Ancon, Isthmian Canal Zone.

Climate and Hygiene of Rio de Janiero.
J. DE OLIVEIRA BOTELHO, Brazil.

Health Regulations.
M. H. ALCÍVAR, Guayaquil, Ecuador.

MONDAY MORNING, JANUARY 3, 1916—9 O'CLOCK.

Joint Session, Subsection C and American Psychological Association.

RALEIGH HOTEL.

GEORGE M. KOBER, *Chairman.*

The Defective Child and the Prevention of Feeble-mindedness.
HENRY H. GODDARD, Director of Psychological Research, Training School, Vineland, N. J.

Treatment of the Insane at Large in the Argentine Republic. (Cinematograph.)
RICARDO SARMIENTO LASPIUR, Buenos Aires, Argentina.

Education and Training of Defectives.
E. R. JOHNSTONE, Superintendent, Training School, Vineland, N. J.

Juvenile Delinquency.
WILLIAM HEALY, Director of the Psychopathic Institute, Juvenile Court, Chicago, Ill.

Etiology and Prevention of Insanity from the Sociological Point of View.
WILLIAM A. WHITE, Superintendent, Government Hospital for the Insane, Washington, D. C.

Aftercare of the Insane as Prophylaxis.
E. C. SOUTHARD, Harvard Medical School, Boston, Mass.
S. C. ROSSI, Montevideo, Uruguay.

Mental Hygiene of Adolescents.
A. MORAGA PORRAS, Santiago, Chile. (Three papers.)

Mental Autophrasia.
FERNANDO GORRITI, Physician of the National Colony for the Insane, Buenos Aires, Argentina.

J. MORENO, Buenos Aires, Argentina. (Five reprints.)

MONDAY MORNING, JANUARY 3, 1916—9 O'CLOCK.

Eighth General Session of Section VIII, Subsection 4.

WHITE PARLOR, NEW EBBITT HOTEL.

Surg. Gen. RUPERT BLUE, *Chairman.*

A Résumé of Some of the Recent Studies of the United States Public Health Service Relating to the Causation and to a Method of Preventing Pellagra.
JOSEPH GOLDBERGER, United States Public Health Service.

The Known and the Unknown with Regard to the Etiology and Prevention of Beriberi.
Capt. E. B. VEDDER, Medical Corps, United States Army, Washington, D. C.

Beriberi, an Epidemiologic and Experimental Study.
MARIO G. LEBREDO, Chief of the Section and of the Laboratory of Investigations, etc., Board of Health, Habana, Cuba.

On the Chemical Nature of the Vitamines.
R. R. WILLIAMS, Bureau of Chemistry, Department of Agriculture, Washington, D. C.

Infantile Scurvy.
ALFRED F. HESS, New York City.

Retardation of Nutrition in Highlands of Bogota.
CALIXTO TORRES, Bogota, Colombia.

Testicular Graft.
A. F. CELESIA, Buenos Aires, Argentina.

R. KRAUS, Buenos Aires, Argentina. (Two reprints.)
J. MORENO, Buenos Aires, Argentina. (Four reprints.)

Treatment of Acute Appendicitis.
E. J. CORBELLINI, Buenos Aires, Argentina.

T. MAZZA, Buenos Aires, Argentina. (Three reprints.)

Treatment of Whooping Cough.
R. KRAUS, Buenos Aires, Argentina.

MONDAY AFTERNOON, JANUARY 3, 1916—2 O'CLOCK.

Ninth General Session of Section VIII.

WHITE PARLOR, NEW EBBITT HOTEL.

J. D. GATEWOOD, *Chairman.*

Changes in the Food Supply.
LAFAYETTE B. MENDEL, Professor of Physiological Chemistry, Sheffield Scientific School, Yale University, New Haven, Conn.

Food Supply.
CARL L. ALSBERG, Bureau of Chemistry, Department of Agriculture, Washington, D. C.

A Safe and Sane Milk Supply.
JOHN WEINZIRL, University of Washington, Seattle, Wash.

Plans for the Regulation of the Milk Commerce in Buenos Aires.
RICARDO SARMIENTO LASPIUR, Buenos Aires, Argentina.

Buccal Hygiene.
C. P. BERRA, Buenos Aires, Argentina.
J. L. CATONI, Buenos Aires, Argentina.

TUESDAY MORNING, JANUARY 4, 1916—9 O'CLOCK.

Joint Session, Subsection D with Section V (Engineering), Subsection 4.

WHITE PARLOR, NEW EBBITT HOTEL.

J. D. GATEWOOD, *Chairman.*

Disposal of Refuse.

GEORGE A. SOPER, President, Metropolitan Sewage Commission, New York City.

WILLIAM T. SEDGWICK, Massachusetts Institute of Technology, Boston, Mass.

Collection and Disposal of Municipal Refuse. (Lantern-slide demonstration.)

J. T. FETHERSTON, Commissioner of Street Cleaning, New York. (Lantern-slide demonstration.)

MORRIS KNOWLES, Pittsburgh, Pa.

J. W. PAXTON, Washington, D. C.

TUESDAY AFTERNOON, JANUARY 4, 1916—2 O'CLOCK.

Tenth General Session of Section VIII.

SECTION ROOM, NEW EBBITT HOTEL.

S. L. ROGERS, *Chairman.*

Water Supply.

EDWIN O. JORDAN, Department of Hygiene and Bacteriology, University of Chicago, Chicago, Ill.

E. M. CHAMOT, Laboratory of Sanitary Chemistry, Cornell University, Ithaca, N. Y.

EDWARD BARTOW, Director State Water Survey, Urbana, Ill.

Travel and Transportation.

ALLAN J. MCLAUGHLIN, United States Public Health Service.

Fresh Air and Ventilation in the Light of Modern Research.

C. E. A. WINSLOW, Yale University, New Haven, Conn.

Winter Stations in Argentina.

J. MORENO, Buenos Aires, Argentina.

Climatology of the Sanatorio of Jordan, Sao Paulo, Brazil.

VÍCTOR GODINHO, Sao Paulo, Brazil.

The Model Institute of Medical Clinics of Buenos Aires. (Lantern-slide demonstration.)

TOMÁS S. VARELA, Buenos Aires, Argentina.

WEDNESDAY MORNING, JANUARY 5, 1916—9 O'CLOCK.

ROOM 108, NEW EBBITT HOTEL.

S. L. ROGERS, *Chairman.*

PAN AMERICAN TOPIC.

Progress of Vital Statistics in the Pan American Countries.
Report on the Vital Statistics of El Salvador.
PEDRO S. FONSECA, San Salvador, El Salvador.

WEDNESDAY MORNING, JANUARY 5, 1916—9 O'CLOCK.

Eleventh General Session of Section VIII.

RED PARLOR, NEW EBBITT HOTEL.

Surg. Gen. WILLIAM C. GORGAS, *Chairman.*

Symposium on Anaphylaxis.
Leader: JOHN F. ANDERSON, New Brunswick, N. J.

The Important Steps in the Development of our Knowledge of Anaphylaxis.
JOHN F. ANDERSON, New Brunswick, N. J. (Read by RICHARD WEIL.)

Argentine Biological Theory of Immunity.
JULIO MÉNDEZ. (Paper read by RICARDO SARMIENTO LASPIUR, Buenos Aires, Argentina.)

Concept of Anaphylaxis According to the Biological Immunity Theory of Argentina.
RICARDO SARMIENTO LASPIUR, Buenos Aires, Argentina.

Anaphylaxis and its Relation to Immunity.
J. BRONFENBRENNER, Director, Pathological and Research Laboratories, Western Pennsylvania Hospital, Pittsburgh, Pa.

Anaphylactic Reactions in the Diagnosis of Disease and as an Index of Resistance.
J. A. KOLMER, University of Pennsylvania, Philadelphia, Pa.

Hay Fever.
The Relation of Hay Fever to Anaphylaxis.
G. A. H. CLOWES, Gratwick Laboratory, Research Hospital, Buffalo, N. Y.

Anaphylatoxin and the Mechanism of Anaphylaxis.
RICHARD WEIL, Cornell University Medical College, New York City.

Hay Fever and Certain Other Local Anaphylactic Phenomena Referable to the Respiratory Mucous Membranes.
A. P. HITCHINS, Glenolden, Pa.
C. P. BROWN, Glenolden, Pa.

Asthma.
J. A. RAMPINI, Montevideo, Uruguay.

Hemophilia.
Intensive Antipest Serum Cure.
J. MORENO, Buenos Aires, Argentina.

The Suprarenal Glands in Normal and Pathological Pregnancy.
J. GABASTOU, Buenos Aires, Argentina.

WEDNESDAY EVENING, JANUARY 5, 1916—8 O'CLOCK.

Twelfth General Session of Section VIII.

RED PARLOR, NEW EBBITT HOTEL.

Col. JOHN VAN R. HOFF, *Chairman.*

Symposium on Cancer Research.
Leader: LEO LOEB, Washington University Medical School, St. Louis, Mo.
Eight papers. GENARO GIACOBINI. (Read by title by JUAN GUITERAS.)

General Tendencies and Problems.
LEO LOEB, Washington University Medical School, St. Louis, Mo.

Experimental Studies in Heredity.
MAUD SLYE, University of Chicago, Chicago, Ill.

Factors in Immunity to Cancer.
J. B. MURPHY, Rockefeller Institute, New York City.
W. H. WOGLOM, Crocker Laboratory, Columbia University, New York City.
E. E. TYZZER, Harvard Medical School, Boston, Mass.

Application of Chemistry to Cancer Problems.

CASIMIR FUNK, General Memorial Hospital, New York City.

RICHARD WEIL, Cornell University Medical College, New York City.

Venereal Granuloma.

F. S. GUARCH, Montevideo, Uruguay.

Lymphocytosis Syphilitics.

C. P. MAYER and A. C. GOURDY, Buenos Aires, Argentina.

THURSDAY MORNING, JANUARY 6, 1916—9 O'CLOCK.

ROOM 108, NEW EBBITT HOTEL.

GEORGE M. KOBER, *Chairman.*

PAN AMERICAN TOPIC.

Etiology and Prevention of Tuberculosis from the Sociological Standpoint.

N. A. SOLANO, Panama, Panama.

N. MORALES, La Paz, Bolivia. (Paper read by E. SAGARNAGA, La Paz, Bolivia.)

CONSTANCIO CASTELLS, Montevideo, Uruguay.

JOAQUÍN DE SALTERAIN, Montevideo, Uruguay.

FELIPE GALLEGOS, San José, Costa Rica.

THURSDAY MORNING, JANUARY 6 1916—9 O'CLOCK.

Joint Session of Subsection E and American Association for Cancer Research.

RED PARLOR, NEW EBBITT HOTEL.

LEO LOEB, *Chairman.*

Cancer Problems in Special Biological Groups.

(a) Plant tumors. (Lantern-slide demonstration.)

E. F. SMITH, Department of Agriculture, Washington, D. C.

(b) Fish tumors.

H. R. GAYLORD, Gratwick Cancer Laboratory, Buffalo, N. Y.

Tissue Culture in Cancer.

R. A. LAMBERT, College of Physicians and Surgeons, Columbia University, New York City.

M. BURROWS, Johns Hopkins University Medical School, Baltimore, Md.

The Mechanistic Theory of Cancer.

G. A. H. CLOWES, Gratwick Laboratory, Research Hospital, Buffalo, N. Y.

Radium in Experimental Cancer.

F. C. WOOD, Crocker Laboratory, Columbia University, New York City.

WILLIAM DUANE, Harvard Medical School, Boston, Mass.

Pathology of Experimental Cancer.

J. EWING, Cornell University Medical College, New York City.

Laboratory Diagnosis of Cancer—Sero-Diagnostic Methods in Cancer—The Reactions of Freund v. Dungern, and Abderhalden.

A. F. COCA, Cornell University Medical College, New York City.

Teratoma of the Tuber Cinereum.

C. A. BOSCO, Buenos Aires, Argentina.

FRIDAY MORNING, JANUARY 7, 1916—9 O'CLOCK.

Thirteenth General Session of Section VIII.

RED PARLOR, NEW EBBITT HOTEL.

GARY N. CALKINS, *Chairman.*

Symposium on Life Histories of Protozoa.

Leader: GARY N. CALKINS, Columbia University, New York City.

General Biology of the Protozoa Life Cycle.

GARY N. CALKINS, Columbia University, New York City.

Classification of Parasitic Amœbae of Man.

Capt. C. F. CRAIG, Medical Corps, United States Army.

Origin of Diverse Races in Difflugia corona. (Lantern slides.)

H. S. JENNINGS, Johns Hopkins University, Baltimore, Md.

The Biological and Medical Significance of the Life History of Intestinal Flagellates. (Lantern-slide demonstration.)

C. A. KOFOID, University of California, Berkeley, Cal. (Paper read by M. M. METCALF.)

Discovery and Identification of the Stages in the asexual Cycle of the Causative Organism of Peruvian Verruga.

C. H. T. TOWNSEND, Bureau of Entomology, United States Department of Agriculture, Washington, D. C.

A New Plant Flagellate.
Parasitology of Certain Animals of Paraguay.
L. E. MIGONE, Asunción, Paraguay.

Trypanosomes of Venezuela.
Ascanio's Method of Staining Parasites.
R. GONZÁLEZ RINCONES, Caracas, Venezuela.

Cultivation of the Parasite of Rabies by Noguchi's Method.
R. KRAUS and B. BARBARA, Buenos Aires, Argentina.

Adrenalin in Amoebic Dysentery.
T. BAYMA, Sao Paulo, Brazil.

FRIDAY AFTERNOON, JANUARY 7, 1916—2 O'CLOCK.

Fourteenth General Session of Section VIII.

RED PARLOR, NEW EBBITT HOTEL.

H. R. CARTER, *Chairman.*

Mortality from Cancer in the Western Hemisphere.
FREDERICK L. HOFFMAN, Prudential Insurance Company, Newark, N. J.

The Relation of Modes of Injection to the Control of Bacterial Diseases in Pan America.
M. J. ROSENAU, Professor of Preventive Medicine, Harvard Medical School, Boston, Mass.
Discussion by JAMES T. B. BOWLES, New York City.

The Results Obtained in the Use of Magnesium on Tetanus in the Present War.
S. J. MELTZER, Rockefeller Institute, New York City.

Tropical Parasitosis.
Biting Insects of Venezuela.
R. GONZÁLEZ RINCONES, Caracas, Venezuela.

Reorganization of the Medico-Legal Service in Chile.
I. MARCIAL RIVERA, Santiago, Chile.

Operative Treatment of Voluminous Uniocular Cysts.
D. MASSA, Buenos Aires, Argentina.

Prophylaxis of Gonorrhea and Syphilis.
J. TRAVIESO, Montevideo, Uruguay.

Method of Approach in Teaching Sex Ethics to Girls and Young Women.
WILLIAM R. MANNING, University of Texas, Austin, Tex.

The Septicity of the Mouth and the Affections of the Naso-Pharynx.
C. ROBERTSON, Buenos Aires, Argentina.

Antirabic Vaccination in Habana, with Statistics Compared with Those of Other Nations.
JUAN SANTOS FERNÁNDEZ, Habana, Cuba. (Paper read by JUAN GUITERAS, Habana, Cuba.)

A Historical Résumé of the Investigations of Yellow Fever Leading up to the Findings of the Reed Board.
Gen. GEORGE M. STERNBERG, United States Army. (Paper read by Col. J. V. R. HOFF, United States Army. Gen. STERNBERG died Nov. 2, 1915.)

SECTION IX.—TRANSPORTATION, COMMERCE, FINANCE, AND TAXATION.

L. S. ROWE, *Chairman.*
H. N. BRANCH, *Corresponding Secretary.*

Subsection 1.—Transportation.
Subsection 2.—Commerce.
Subsection 3.—Finance.
Subsection 4.—Taxation.

TUESDAY MORNING, DECEMBER 28, 1915 9.30 O'CLOCK.

First General Session.

NEW WILLARD HOTEL, SMALL BALLROOM, TENTH FLOOR.

ERNESTO QUESADA, *Chairman.*

Opening of session by JACOB H. HOLLANDER, Johns Hopkins University, Baltimore, Md.

Address of Welcome by the Hon. WILLIAM G. MCADOO, Secretary of the Treasury.

Response on behalf of the members of Section IX by the Hon. JOAQUÍN D. CASASÚS, ex-Ambassador from Mexico to the United States.

Remarks by JACOB H. HOLLANDER.

The Relation of Central to Local Control on the Regulation of Public Utilities.

C. A. PROUTY, Director, Division of Valuation, Interstate Commerce Commission. (Read by C. E. STAPLES.)

International Currency.

JOAQUÍN D. CASASÚS, ex-Ambassador from Mexico to the United States.

TUESDAY AFTERNOON, DECEMBER 28, 1915—2.30 O'CLOCK.

Joint Session of Section IV and Section IX with Program Furnished by Subsection on Commercial Education of Section IV and Subsection of Commerce of Section IX.

PAN AMERICAN UNION.

ANTONIO RAMÍREZ FONTECHA, *Chairman.*

INTRODUCTORY REMARKS.

Hon. WILLIAM C. REDFIELD, Secretary of Commerce, Washington, D. C.

Hon. ANDREW J. PETERS, Assistant Secretary of the Treasury, Washington, D. C.

JOHN H. FAHEY, former President, United States Chamber of Commerce, Boston, Mass.

EDMUND J. JAMES, President, University of Illinois, Urbana, Ill.

GENERAL TOPIC.

Preparation for Trade, Domestic and Foreign, from the Standpoint of the Educator. EDWIN F. GAY, Dean, graduate School of Business Administration, Harvard University, Cambridge, Mass.

TUESDAY EVENING, DECEMBER 28, 1915—8 O'CLOCK.

Section IX Guest of American Economic Association.

NEW WILLARD HOTEL, LARGE BALLROOM.

Rear Admiral CHARLES HERBERT STOCKTON, *Chairman.*

Addresses of the Presidents of the American Economic Association and American Historical Association:

The Apportionment of Representatives.
WALTER F. WILLCOX, American Economic Association.

The Relation of History to Nationalism.
H. MORSE STEPHENS, American Historical Association.

WEDNESDAY MORNING, DECEMBER 29, 1915—9.30 O'CLOCK.

Second General Session.

NEW WILLARD HOTEL, SMALL BALLROOM.

His Excellency DOMICIO DA GAMA, *Chairman.*

Is it Desirable and Possible to Establish Uniform Rates, Methods, and Classifications in Port Charges, Customs Regulations, and Classifications Between the North, Central, and South American Countries?

JUAN JOSÉ REINOSO, Peru. (Read by Corresponding Secretary.)

Hon. F. M. HALSTEAD, Division of Customs, United States Treasury.

WEDNESDAY AFTERNOON, DECEMBER 29, 1915—2.30 O'CLOCK.

Section IX Guest of American Economic Association.

RALEIGH HOTEL, LARGE BANQUET HALL.

BALTHASAR H. MEYER, *Chairman.*

Economic Theorizing and Scientific Progress.
J. H. HOLLANDER, Johns Hopkins University.

The Rôle of Money in Economic Theory.
W. C. MITCHELL, Columbia University.

THURSDAY MORNING, DECEMBER 30, 1915—10.30 O'CLOCK.

Section IX Guest of the American Economic Association.

RALEIGH HOTEL, LARGE BANQUET HALL.

Maintenance of Retail Prices.
FRANK W. TAUSSIG, Harvard University.

Some Problems and Principles of Government Regulation of Railroads.
EMORY R. JOHNSON, University of Pennsylvania.

THURSDAY AFTERNOON, DECEMBER 30, 1915—2.30 O'CLOCK.

Joint Session of Section IX with American Economic Association.

HOTEL RALEIGH, LARGE BANQUET HALL.

Topic: *The Relation of Public Finance to Private Credit.*

The Requisites for the Encouragement of the Investment of Foreign Capital.
WILLARD STRAIGHT, New York City.

Discussion: JULIO PHILIPPI, Messrs. SRIDINAS R. WAGEL, Madras, India; C. E. PEPPER, Washington, D. C.; VICENTE GONZÁLEZ B., National Manufacturers' Association, New York; and Prof. BONN.

FRIDAY MORNING; DECEMBER 31, 1915—9.30 O'CLOCK.

Third General Session of Section IX.

SMALL BALLROOM, NEW WILLARD HOTEL.

ROBERTO ANCÍZAR, *Chairman.*

General Topic: *Principles that Should Govern the Relations Between Federal, State, and Local Revenues.*

History of the Local and Fiscal Finances of Chile.
JULIO PHILIPPI.

On the general topic:
EDWIN R. A. SELIGMAN, Columbia University.
SERAPIO HERNÁNDEZ Y HERNÁNDEZ, Tegucigalpa, Honduras. (Read by title.)

MONDAY MORNING, JANUARY 3, 1916—9.30 O'CLOCK.

The Four Subsections Met Together.

NEW WILLARD HOTEL, PART OF LARGE BALLROOM.

EDWIN R. A. SELIGMAN, *Chairman.*

Changes in Accepted Conclusions as to International Trade Due to (1) Asiatic Development (2) War.
JOHN BATES CLARK, Columbia University.

Effects of the War Upon the Trade of South America.
GEORGE C. ROBERTS, National City Bank, New York, N. Y.

Organization and Functions of the Finances of the United States of America and the United States of Venezuela.
N. VELOZ GOITICOA, Venezuela.

The Best Methods to Facilitate Commercial Transactions Between Manufacturers of the United States and Spanish American Merchants.
LORENZO ANADÓN, Argentina. (Paper read by JUAN B. AMBROSETTI, Argentine Delegation.)

The American System of Special Assessments and its Applicability in Other Countries.
ROBERT M. HAIG, Columbia University, New York City, N. Y.

The Railway System of Colombia. (Read by title.)
ALFREDO ORTEGA, Bogotá, Colombia.

Railways of Uruguay. (Read by title.)
GUILLERMO DOTTE, Montevideo, Uruguay.

Direct Taxation. (Read by title.)
JUAN A. MÁRQUEZ, Montevideo, Uruguay.

Abundant Vegetable Products in Venezuela for Dyeing and Tanning (Read by title.)
ANDRÉS YBARRA, Caracas, Venezuela.

MONDAY AFTERNOON, JANUARY 3, 1916—3 O'CLOCK.

Joint Session of Section V with Subsection on Transportation of Section IX.

NEW WILLARD HOTEL, SMALL BALLROOM.

(The papers supplied by Section IX were as follows:)

Air-propelled Gliding Boats and their Applicability to Rapid Navigation on South American Rivers.
GONZALO MEJÍA, Colombia.

How the Aeroplane May Effect Closer Alliance of the South American Countries with the United States.
A. SANTOS-DUMONT, Brazil.

MONDAY AFTERNOON, JANUARY 3, 1916—3 O'CLOCK.

Joint Session of Subsections 2, 3, and 4.

NEW WILLARD HOTEL, PART OF LARGE BALLROOM.

EDWIN R. A. SELIGMAN, *Chairman.*

Commerce Between the United States and Central America.
RAFAEL GUIROLA, Salvador.

The Necessity of Adopting Uniform Principles in Banking in the American Countries as a Means of Approximation to Uniform Monetary Systems.
TORIBIO ESQUIVEL OBREGÓN, México.

Possibility of Introducing a Common Monetary Standard as Between the Republics of America.
E. W. KEMMERER, Princeton University.

The Taxation of Business.
THOMAS S. ADAMS, Cornell University.

Commercial Relations Between El Salvador and the United States. (Read by title.)
PEDRO S. FONSECA, San Salvador, El Salvador.

A Common Monetary Unit for America. (Read by title.)
GUILLERMO SUBERCASEAUX, Santiago, Chile.

TUESDAY MORNING, JANUARY 4, 1916—9.30 O'CLOCK.

The Four Subsections Met Together.

NEW WILLARD HOTEL, SMALL BALLROOM.

S. N. D. NORTH, *Chairman.*

Summary of Inland Navigation in Brazil.
PEDRO SOUTO MAIOR, Brazil. (Read by CLINTON D. SMITH.)

The Safety First Movement in American Railways.
R. G. RICHARDS, Chicago.

The Balance of Trade Between South America and the United States.
JEREMIAH W. JENKS, New York University.

TUESDAY AFTERNOON, JANUARY 4, 1916—2.30 O'CLOCK.

The Four Subsections Met Together.

NEW WILLARD HOTEL, SMALL BALLROOM.

JACOB H. HOLLANDER, *Chairman.*

The Financial Problem of Nicaragua.
PEDRO J. CUADRA CH., Nicaragua.

Foreign Trade Between the Countries of the American Continent. (Read by title.)
ARTURO GUIMARAES, Rio de Janeiro, Brazil.

The Industrial and Financial Investments as a Basis of Foreign Trade Expansion.
DAVID KINLEY, University of Illinois.

Why Latin-American Municipal and State Bonds Should be Quoted in New York.
ROGER W. BABSON, Boston, Mass.

Direct Taxation in Costa Rica.
ROBERTO BRENES MESÉN, Costa Rica.

Uniformity in Demographic Statistics and in Dates for the Taking of the Census in Latin American Countries. (Read by title.)
ÁLVARO COVARRUBIAS ARLEGUI, Santiago, Chile.

Natural Resources and the Commercial and Economic Development of Guatemala. (Read by title.)
PEDRO GÁLVEZ PORTOCARRERO, Guatemala City, Guatemala.

The Common Monetary Standard. (Read by title.)
PEDRO J. CUADRA CH., Nicaragua.

Brazil: Contribution to Her Economic and Financial Study from 1888 to 1915. (Read by title.)
ÁLVARO DE MENEZES, Rio de Janeiro, Brazil.

Organization of the European Foreign Trade with Uruguay, with Special Reference to Manufactured Goods. (Read by title.)
OCTAVIO MORATÓ, in collaboration with J. WEST, Montevideo, Uruguay.

Public Finance and Credit in Peru. (Read by title.)
ENRIQUE RAMÍREZ GASTÓN, Lima, Perú.

WEDNESDAY MORNING, JANUARY 5, 1916—9.30 O'CLOCK.

The Four Subsections Met Together.

NEW WILLARD HOTEL, INTERSTATE ROOM, MEZZANINE FLOOR.

JOHN BATES CLARK, *Chairman.*

Motor-driven Vehicles and Motor Railroad Cars as a Factor in Transportation.
THOMAS H. WHELESS, Newark, N. J.

Resources of Honduras and its Commercial Development.
Exmo. Sr. GUILLERMO CAMPOS, Minister of Honduras in Guatemala.

A Plea for the Ratification of the Buenos Aires Trade-Mark Convention of August 20, 1910.
JAMES T. NEWTON, First Assistant Commissioner of Patents, United States of America.

Some Possible Reciprocal Relations in the Patent Practice of Pan American Countries.
FREDERICK TRANSOM, Philadelphia, Pa.

Need of an International Agreement on Ship Tonnage. (Read by title.)
GUILLERMO LYONS, Montevideo, Uruguay.

Natural Resources and the Commercial and Economic Development of Uruguay. (Read by title.)
PABLO FONTAINA, Montevideo, Uruguay.

Customs Regulations in Uruguay. (Read by title.)
A. IDIARTEGARAY, Montevideo, Uruguay.

Credit and Banking. (Read by title.)
ALEJANDRO TÁLICE, Montevideo, Uruguay.

Need of Reforming the Taxation Laws so as to Correlate Them with the Cadastral Survey in the Political and Economic Policy of Nations. (Read by title.)
ANTONIO F. SOLARI, Buenos Aires, Argentina.

THURSDAY MORNING, JANUARY 6, 1916—9.30 O'CLOCK.

Closing Session of Section IX.

NEW WILLARD HOTEL, INTERSTATE ROOM, MEZZANINE FLOOR.

JACOB H. HOLLANDER, *Chairman.*

Lines of Future Railway Development.
FRED LAVIS, New York.

The Relation of Central to Local Control in the Regulation of Public Utilities.
ALFRED P. THOM, Washington, D. C.

Education, Climate, Mineral and Agricultural Resources, Commerce, Finance, and Charitable Institutions of Guatemala.
JOAQUÍN DE OLIVEIRA BOTELHO, Brazil.

The Republic of Honduras: Its Means of Communication, Commerce, Present and Prospective Industrial and Economic Development.
Biographical and Statistical Review of the Republic of Honduras.
ANTONIO RAMÍREZ FONTECHA, Honduras.

The Assessment of Real Estate.
LAWSON PURDY, New York, N. Y.

Notes on the Commercial and Industrial Development of the Dominican Republic. (Read by title.)
FEDERICO VELÁSQUEZ, Santo Domingo, Dominican Republic.

APPENDIX V.

LEARNED SOCIETIES, EDUCATIONAL INSTITUTIONS, PRIVATE ORGANIZATIONS, AND GOVERNMENTAL BUREAUS.

Academia Brasileira de Letras, Brasil.
Academia de Ciencias Médicas, Físicas y Naturales de la Habana, Cuba.
Academia de Chile, Chile.
Academia Colombiana de Jurisprudencia, Colombia.
Academia de la Historia, Mexico.
Academia Militar, Guatemala.
Academia Nacional de Historia, Colombia.
Academia Nacional de Medicina, Brasil.
Academia Nacional de Medicina, Perú.
Academia Peruana de Jurisprudencia y Legislación, Perú.
Academia de Práctica Forense, Perú.
Actuarial Society of America.
Aero Club of America.
Agricultural College of Utah, Logan, Utah.
Agriculture and Mechanical College, College Station, Texas.
Albany Society of Civil Engineers.
American Academy of Medicine.
American Academy of Political and Social Science.
American Anthropological Association.
American Antiquarian Society.
American Association Farmer's Institute Workers.
American Association for International Conciliation.
American Association for the Advancement of Agricultural Teaching.
American Association for the Advancement of Science.
American Association for Labor Legislation.
American Association Immunologists.
American Association Instructors and Investigators in Poultry Husbandry.
American Association Medical Milk Commissioners.
American Association Museums.
American Association of Economic Entomologists.
American Association to Promote Teaching of Speech to the Deaf.

American Astronomical Society.
American Bankers Association.
American Bar Association.
American Ceramic Society.
American Chemical Society.
American Civic Association.
American Climatological and Clinical Association.
American Economic Association.
American Electric Railway Association.
American Electrochemical Society.
American Entomological Society.
American Ethnological Society.
American Exporters and Importers' Association.
American Farm Management Association.
American Folk Lore Society.
American Forestry Association.
American Foundrymen's Association.
American Genetic Association.
American Geographical Society.
American Highway Association.
American Historical Association.
American Home Economics Association.
American Institute of Architects.
American Institute of Chemical Engineers.
American Institute of Consulting Engineers.
American Institute of Criminal Law and Criminology.
American Institute of Electrical Engineers.
American Institute of Metals.
American Institute of Mining Engineers.
American Library Association.
American Manufacturers' Export Association.
American Mathematical Society.
American Medical Association.
American Medical Society for Study of Alcohol and Narcotics.
American Mining Congress.
American Museum of Natural History.
American Peace Society.
American Peat Society.
American Pedriatic Society.
American Philological Association.
American Philosophical Association.
American Philosophical Society.

American Physical Education Association.
American Physical Society.
American Physiological Society.
American Phytopathological Society.
American Political Science Association.
American Pomological Society.
American Prison Association.
American Psychological Association.
American Public Health Association.
American Railway Association.
American Railway Bridge and Building Association.
American Railway Engineering Association.
American Railway Master Mechanics' Association.
American Red Cross.
American Sanitorium Association.
American School Hygiene Association.
American Society for Cancer Research.
American Society for Control of Cancer.
American Society for Extension of University Teaching.
American Society for Testing Material.
American Society International Law.
American Society for Judicial Settlement of International Disputes.
American Society of Aeronautic Engineers.
American Society of Agronomy.
American Society of Biological Chemists.
American Society of Civil Engineers.
American Society of Heating and Ventilating Engineers.
American Society of Mechanical Engineers.
American Society of Municipal Improvements.
American Society of Naturalists.
American Society of Naval Engineers.
American Society of Refrigerating Engineers.
American Society of Tropical Medicine.
American Society of Zoologists.
American Sociological Society.
American Statistical Association.
American Surgical Association.
American Therapeutic Society.
American Veterinary Medical Association.
American Water Works Association.
Amherst College, Amherst, Mass.
Anthropological Society of Washington.
Archeological Institute of America.

Architectual League of America.
Asistencia Pública de Buenos Aires, Argentina.
Asociación de Educación Nacional, Chile.
Asociación de Maestros del Uruguay, Uruguay.
Association American Agricultural Colleges and Experiment Stations.
Association American Economic Entomologists.
Association American Law Schools.
Association American Portland Cement Manufacturers.
Association American State Geologists.
Association American Universities.
Association Civil Engineers of Cornell University.
Association Life Insurance Medical Directors.
Association Military Surgeons of the United States.
Association of Colleges and Preparatory Schools of the Southern States.
Association of Collegiate Alumnae.
Association of Engineering Societies.
Association of Feed Control Officials.
Association of Official Agricultural Chemists.
Association of Official Seed Analysts.
Association of State Superintendents.
Astrophysical Observatory.
Ateneo de Montevideo, Uruguay.
Ateneo de Santiago, Chile.
Atlanta Chamber of Commerce.
Babson's Statistical Organization.
Barnard College, Columbia University, New York City.
Biological Society of Washington.
Board of Indian Commissioners.
Boston College, Boston, Mass.
Boston University, Boston, Mass.
Botanical Society of America.
Bowdoin College, Brunswick, Me.
Brooklyn Engineers' Club.
Brown University, Providence, R. I.
Brunswick Board of Trade.
Bryn Mawr College, Bryn Mawr, Pa.
Bucknell University, Lewisburg, Pa.
Bureau of American Ethnology.
Bureau of Commercial Economics.
Bureau of Railway Economics.
Business Men's Club of Memphis.

Butler University, Indianapolis, Ind.
California State Board of Health.
Canisius College, Buffalo, N. Y.
Carnegie Endowment for International Peace.
Carnegie Foundation for the Advancement of Teaching.
Carnegie Institute of Technology, Pittsburgh, Pa.
Carnegie Institute of Washington.
Carnegie Museum of Pittsburgh.
Case School of Applied Sciences, Cleveland, Ohio.
Catholic Educational Association.
Catholic University of America, Washington, D. C.
Centro Nacional de Ingenieros, Argentina.
Centro Naval, Argentina.
Centro de Sciencias, Letras e Artes, Brasil.
Chamber of Commerce of United States of America.
Chamber of Commerce of the State of New York.
Charleston (S. C.) Chamber of Commerce.
Charleston (W. Va.) Chamber of Commerce.
Charlotte Chamber of Commerce.
Chemical Society of Washington.
Chemists' Club, New York City.
Chicago Association of Commerce.
Cincinnati Chamber of Commerce.
Civil Engineers' Society of St. Paul.
Clark University, Worcester, Mass.
Clemson Agricultural College, Clemson, S. C.
Cleveland Chamber of Commerce.
Cleveland Engineering Society.
Club de Engenharia, Brasil.
Colegio de Abogados de la Habana, Cuba.
Colegio de Abogados de la República de Costa Rica, Costa Rica.
Colegio Nacional "Benigno Malo," Ecuador.
College of Hawaii, Honolulu, Hawaii.
College of the City of New York, New York City.
College of the Holy Cross, Worcester, Mass.
Colorado College, Colorado Springs, Colo.
Columbia Historical Society of the District of Columbia.
Columbia University, New York City.
Columbus (Ohio) Chamber of Commerce.
Comisión Nacional de Educación Física del Uruguay, Uruguay.
Commercial Law League, Chicago, Ill.

Commercial Museum, Philadelphia, Pa.
Comparative Law Bureau, American Bar Association.
Conference of State and Provincial Boards of Health of North America.
Consejo Nacional de Higiene, Uruguay.
Conservatorio de Música y Declamación, Panamá.
Cornell University, Ithaca, N. Y.
Corte de Justicia Centro-Americana, Centro-América.
Cosmos Club, Washington, D. C.
Council on Medical Education.
Cruz Vermelha Brasileira, Brasil.
Dartmouth College, Hanover, N. H.
Davenport Academy of Sciences, Indiana.
Delaware College, Newark, Del.
Denver Chamber of Commerce.
Department of Correction, New York City.
Department of Health, Commonwealth of Pennsylvania.
Detroit Board of Commerce.
Dirección General de Instrucción Primaria, Uruguay.
Division of Economics and History, Carnegie Endowment for International Peace.
Division of Intercourse and Education, Carnegie Endowment for International Peace.
Division of International Law, Carnegie Endowment for International Peace.
Drexel Institute, Philadelphia, Pa.
Earlham College, Richmond, Ind.
Engineers' Club of Baltimore.
Engineers' Club of Minneapolis.
Engineers' Club of Philadelphia.
Engineers' Society of Milwaukee.
Engineers' Society of North Eastern Pennsylvania.
Engineers' Society of Pennsylvania.
Engineers' Society of Western Pennsylvania.
Entomological Society of America.
Entomological Society of Washington.
Escola de Direito de Bahia, Brasil.
Escuela de Derecho de Costa Rica, Costa Rica.
Escuela de Ingenieros, Perú.
Escuela de Medicina, Química y Farmacia de la Universidad de El Salvador, El Salvador.
Escuela Nacional de Industrias de Montevideo, Uruguay.

Escuela Nacional de Minas, Colombia.
Estación Experimental Agronómica, Cuba.
Estación Experimental de Tucumán, Argentina.
Eugenics Research Association.
Faculdade Livre de Sciencias Juridicas e Sociaes do Rio de Janeiro, Brasil.
Faculdade de Medicina de Porto Alegre, Brasil.
Facultad de Agronomía y Veterinaria de La Universidad Nacional de Buenos Aires, Argentina.
Facultad de Ciencias Ecónomicas de la Universidad Nacional de Buenos Aires, Argentina.
Facultad de Ciencias Exactas, Físicas y Naturales de la Universidad Nacional de Buenos Aires, Argentina.
Facultad de Ciencias Físicas, Matemáticas y Astronómicas de la Universidad Nacional de la Plata, Argentina.
Facultad de Ciencias Jurídicas y Sociales de la Universidad Nacional de la Plata, Argentina.
Facultad de Ciencias Médicas de la Universidad Nacional de Buenos Aires, Argentina.
Facultad de Derecho y Ciencias Sociales de la Universidad Nacional de Buenos Aires, Argentina.
Facultad de Derecho y Notariado, Guatemala.
Facultad de Derecho y Notariado de Occidente y Septentrión, Nicaragua.
Facultad de Filosofía y Letras de la Universidad Nacional de Buenos Aires, Argentina.
Federación de Estudiantes de Chile, Chile.
Federation of American Societies for Experimental Biology.
Federation of International Polity Clubs.
Field Museum of Natural History.
Fordham University, New York City.
Franklin Institute, Philadelphia, Pa.
General Federation of Women's Clubs.
Geological Society of America.
Geological Society of Washington.
George Peabody College for Teachers, Nashville, Tenn
Georgetown University, Washington, D. C.
George Washington University, Washington, D. C.
Georgia School of Technology, Atlanta, Ga.
Gimnasio Paraguayo, Paraguay.
Grand Rapids Association of Commerce.
Greater Des Moines Committee, Iowa.

Greater Vermont Association.
Gremio Polytechnico de Sao Paulo, Brasil.
Grinnell College, Grinnell, Iowa.
Hamilton College, Clinton, N. Y.
Hartford Chamber of Commerce.
Harvard University, Cambridge, Mass.
Health Department of the District of Columbia.
Honolulu Chamber of Commerce.
Hospital Rosales, El Salvador.
Hunter College, New York City.
Illinois Manufacturers' Association.
Illinois Society of Engineers and Surveyors.
Illinois State Board of Health.
Illuminating Engineers' Society, New York City.
Ilustre Colegio de Abogados, Peru.
Indiana Academy of Sciences.
Indiana State Board of Health.
Indiana University, Bloomington, Ind.
Institute of Radio Engineers.
Instituto Archeologico e Geographico Pernambucano, Brasil.
Instituto y Escuela Normal Central de Señoritas, Guatemala.
Instituto Geográfico Argentino, Argentina.
Instituto Historico da Bahia, Brasil.
Instituto Historico e Geographico Brasileiro, Brasil.
Instituto de Ingenieros de Chile, Chile.
Instituto de Ingenieros de Río de la Plata, Argentina.
Instituto Médico de Sucre, Bolivia.
Instituto Nacional Central de Varones, Guatemala.
Instituto da Ordem dos Advogados Brasileiros, Brasil.
Instituto Paraguayo, Paraguay.
Instituto Pedagógico de Buenos Aires, Argentina.
Instituto Pedagógico de Santiago, Chile.
Instituto Polytechnico Brasileiro, Brasil.
Insular Chamber of Commerce, San Juan, Porto Rico.
International Association for Testing Materials.
International Dry Farming Congress.
International Health Commission.
Iowa Engineering Society.
Iowa State College, Ames, Iowa.
Johns Hopkins University, Baltimore, Md.
Junta de Historia y Numismática Americana, Argentina.

Kansas State Agricultural College, Manhattan, Kans.
Kenyon College, Gambier, Ohio.
Knox College, Galesburg, Ill.
Knoxville Chamber of Commerce.
Lafayette College, Easton, Pa.
Lake Mohonk Conference of Friends of the Indians and Other Dependent Peoples.
Lehigh University, South Bethlehem, Pa.
Leland Stanford Junior University, Leland Stanford University, Cal.
Lewis Institute, Chicago, Ill.
Liga Nacional Contra el Alcoholismo, Chile.
Louisiana State University and State Agricultural and Mechanical College, Baton Rouge, La.
Louisville Board of Trade.
Maryland Agricultural College, College Park, Md.
Maryland State Board of Health.
Massachusetts Agricultural College, Amherst, Mass.
Massachusetts Institute of Technology, Boston, Mass.
Medical Society of the District of Columbia.
Medical Society of Virginia.
Merchants and Manufacturers' Association, Baltimore, Md.
Merchants Association of New York.
Merchants Association, Manila, P. I.
Miami University, Oxford, Ohio.
Michigan College of Mines, Houghton, Mich.
Michigan State Board of Health.
Middlebury College, Middlebury, Vt.
Milwaukee Public Museum.
Mining and Metallurgical Society of America.
Mississippi Agricultural and Mechanical College, Agricultural College, Miss.
Missouri Historical Society.
Modern Language Association of America.
Montana Society of Engineers.
Montana State College of Agricultural and Mechanical Arts, Bozeman, Mont.
Montana State School of Mines, Butte, Mont.
Mount Holyoke College, South Hadley, Mass.
Municipal Engineers of New York.
Museo de Historia Natural de Buenos Aires, Argentina.
Museo Nacional, Brasil.

Museo Nacional, Colombia.
Museo Nacional, El Salvador.
Museo "Simoens da Silva," Brasil.
Museo Social Argentino, Argentina.
Museo de la Universidad Nacional de la Plata, Argentina.
Museum of the American Indian, Heye Foundation.
Museum of the State of New York.
National Academy of Sciences.
National Association for Study and Prevention of Tuberculosis.
National Association of Cotton Manufacturers.
National Association of Manufacturers.
National Association of State Universities.
National Brick Manufacturers' Association.
National Child Labor Commission.
National Commercial Teachers' Federation.
National Committee on Provision for the Feeble-minded.
National Conference of Charities and Corrections.
National Conservation Association.
National Dental Association.
National District Heating Association.
National Drainage Congress.
National Economic League.
National Education Association.
National Electric Light Association.
National Federation of College Women.
National Federation State Teachers' Association.
National Fire Protection Association.
National Foreign Trade Council.
National Geographic Society.
National Housing Association.
National Implement and Vehicle Association.
National Kindergarten Association.
National Municipal League.
National Rivers and Harbors Congress.
National Society for Promotion of Industrial Education.
National Society of the Sons of the American Revolution.
National Tax Association.
New England Water Works Association.
New Hampshire Agricultural and Mechanical College, Durham N. H.
New Mexico School of Mines, Socorro, N. Mex.
New York Academy of Medicine.

New York Academy of Sciences.
New York Botanical Gardens.
New York Entomological Society.
New York State Waterways Association.
New York University, New York City.
Norfolk Chamber of Commerce.
North Carolina State Board of Health.
North Dakota Agricultural College, Agricultural College, N. Dak.
Northwestern University, Evanston, Ill.
Oberlin College, Oberlin, Ohio.
Observatorio Astronómico del Colegio de Belén, Cuba.
Observatorio del Colegio de Nuestra Señora de Montserrat, Cuba.
Official Dairy Instructors' Association.
Oficina Internacional Centro-Americana, Centro-América.
Oficina Internacional Universitaria Americana, Uruguay.
Oficina Meteorológica Argentina, Argentina.
Ohio Engineering Society.
Ohio State Archæological and Historical Society.
Ohio State Board of Health.
Ohio Wesleyan University, Delaware, Ohio.
Oregon Society of Engineers.
Pacific Northwest Society of Engineers.
Panama-Pacific Exposition.
Pan American Division, American Association for International Conciliation.
Pan American Society of the United States.
Pan American Union.
Peabody Museum of Harvard University.
Peabody Museum of Yale University.
Philadelphia Chamber of Commerce.
Phillips Academy, Andover, Mass.
Philosophical Society of Washington.
Pittsburgh Chamber of Commerce.
Portland Chamber of Commerce (Maine).
Prensa de Venezuela, Venezuela.
Princeton University, Princeton, N. J.
Purdue University, Lafayette, Ind.
Radcliffe College, Cambridge, Mass.
Railway Club of Pittsburgh.
Railway Signal Association.

Religious Education Association.
Rennselaer Polytechnic Institute.
Rhode Island State College, Kingston, R. I.
Rice Institute, Houston, Tex.
Richmond College, Richmond, Va.
Rockefeller Foundation International Health Commission.
Rockefeller Institute for Medical Research.
Rose Polytechnic Institute, Terre Haute, Ind.
Russell Sage Foundation.
Rutgers College, New Brunswick, N. J.
St. Louis University, St. Louis, Mo.
St. Stephens College, Annandale, N. Y.
School of American Archæology.
Seismological Society of America.
Smith College, Northampton, Mass.
Smithsonian Institution.
Sociedad de Amigos de la Educación Popular de Montevideo, Uruguay.
Sociedad Argentina de Derecho Internacional, Argentina.
Sociedad Boliviana de Derecho Internacional, Bolivia.
Sociedad Científica Argentina, Argentina.
Sociedad Científica de Chile, Chile.
Sociedad Colombiana de Ingenieros, Colombia.
Sociedad Cubana de Derecho Internacional, Cuba.
Sociedad Cubana de Ingenieros, Cuba.
Sociedad Económica de "Amigos del País de la Habana, Cuba.
Sociedad de Fomento Fabril, Chile.
Sociedad de Geografía e Historia, Chile.
Sociedad Jurídico Literaria, Ecuador.
Sociedad Mexicana de Geografía y Estadística, México.
Sociedad Nacional de Agricultura, Chile.
Sociedad Nacional de Profesores, Chile.
Sociedad Odontológica Argentina, Argentina.
Sociedad Paraguaya de Derecho Internacional, Paraguay.
Sociedad Peruana de Derecho Internacional, Perú.
Sociedade Brasileira de Direito Internacional, Brasil.
Sociedade de Geographia de Rio de Janeiro, Brasil.
Sociedade de Medicina Legal e Criminalogia da Bahia, Brasil.
Sociedade Nacional de Agricultura, Brasil.
Sociedade Scientifica de São Paulo, Brasil.
Société Haïtienne du Droit International, Haïti.

Society for Practical Astronomy.
Society for Promotion of Agricultural Sciences.
Society for Promotion of Engineering Education.
Society of American Bacteriologists.
Society of American Foresters.
Society of Naval Architects and Marine Engineers.
South Dakota State College of Agricultural and Mechanical Arts, Brookings, S. Dak.
South Dakota State School of Mines, Rapid City, S. Dak.
Southern Commercial Congress.
Southern Conference for Education and Industry.
Southern Geographical Society.
Southern Sociological Congress.
State College of Washington, Pullman, Wash.
State University of Iowa, Iowa City, Iowa.
State University of Nevada, Reno, Nev.
Stevens Institute of Technology, Hoboken, N. J.
Swarthmore College, Swarthmore, Pa.
Teachers' College, Columbia University, New York City.
Throop College of Technology, Pasadena, Cal.
Trinity College, Durham, N. C.
Trinity College, Hartford, Conn.
Tufts College, Tufts College, Mass.
Tulane University, New Orleans, La.
Union College, Schenectady, N. Y.
United States Army Medical Museum.
United States Board of Engineers for Rivers and Harbors, War Department.
United States Board of Indian Commissioners.
United States Botanic Gardens, Washington, D. C.
United States Bureau of Animal Industry, Department of Agriculture.
United States Bureau of Biological Survey, Department of Agriculture.
United States Bureau of Crop Estimates, Department of Agriculture.
United States Bureau of Education, Interior Department.
United States Bureau of Fisheries, Department of Commerce.
United States Bureau of Foreign and Domestic Commerce, Department of Commerce.
United States Bureau of Immigration, Department of Labor.
United States Bureau of Insular Affairs, War Department.
United States Bureau of Labor Statistics, Department of Labor.

United States Bureau of Lighthouses, Department of Commerce.
United States Bureau of Medicine and Surgery, Navy Department.
United States Bureau of Mines, Interior Department.
United States Bureau of Naturalization, Department of Labor.
United States Bureau of Navigation, Department of Commerce.
United States Bureau of Navigation, Navy Department.
United States Bureau of Plant Industry, Department of Agriculture.
United States Bureau of Soils, Department of Agriculture.
United States Bureau of Steam Engineering, Navy Department.
United States Bureau of Standards, Department of Commerce.
United States Bureau of the Census.
United States Bureau of Yards and Docks, Navy Department.
United States Children's Bureau, Department of Labor.
United States Civil Service Commission.
United States Coast and Geodetic Survey, Interior Department.
United States Department of Justice, Attorney General's Office.
United States Division of Latin American Affairs, State Department.
United States Engineers Office, War Department.
United States Federal Reserve Board, Treasury Department.
United States Federal Trade Commission.
United States Forest Service, Department of Agriculture.
United States General Land Office, Interior Department.
United States Geographic Board, Interior Department.
United States Geological Survey, Interior Department.
United States Government Hospital for the Insane.
United States Indian Office, Interior Department.
United States Live Stock Sanitary Association, Chicago, Ill.
United States Medical Department, War Department.
United States Military Academy, West Point, N. Y.
United States National Museum.
United States Naval Academy, Annapolis, Md.
United States Naval Hospital, Navy Department.
United States Naval Institute.
United States Naval Medical School, Navy Department.
United States Naval Observatory.
United States Naval Radio Service, Navy Department.
United States Office Markets and Rural Organization, Department of Agriculture.
United States Office Public Roads and Rural Engineering, Department of Agriculture.
United States Patent Office, Interior Department.
United States Postmaster General's Office, Post Office Department.

United States Public Health Service, Treasury Department.
United States Reclamation Service, Interior Department.
United States States Relations Service, Department of Agriculture.
United States Weather Bureau, Department of Agriculture.
Universidad de Antioquía, Colombia.
Universidad Católica de Chile, Chile.
Universidad de Cauca, Colombia.
Universidad Central de Quito, Ecuador.
Universidad de Chile, Chile.
Universidad de Cuzco, Perú.
Universidad de El Salvador, El Salvador.
Universidad de la Habana, Cuba.
Universidad Mayor de San Marcos, Perú.
Universidad de Montevideo, Uruguay.
Universidad Nacional de Córdoba, Argentina.
Universidad Nacional de la Plata, Argentina.
Universidad de Tucumán, Argentina.
University Museum, Philadelphia, Pa.
University of Alabama, University, Ala.
University of Arizona, Tucson, Ariz.
University of Arkansas, Fayetteville, Ark.
University of California, Berkeley, Cal.
University of Chicago, Chicago, Ill.
University of Cincinnati, Cincinnati, Ohio.
University of Colorado, Boulder, Colo.
University of Denver, University Park, Colo.
University of Florida, Gainesville, Fla.
University of Georgia, Athens, Ga.
University of Illinois, Urbana, Ill.
University of Louisville, Louisville, Ky.
University of Maine, Orono, Me.
University of Michigan, Ann Arbor, Mich.
University of Minnesota, Minneapolis, Minn.
University of Missouri, Columbia, Mo.
University of Montana, Missoula, Mont.
University of Nebraska, Lincoln, Nebr.
University of New Mexico, Albuquerque, N. Mex.
University of North Carolina, Chapel Hill, N. C.
University of North Dakota, University, N. Dak.
University of Notre Dame, Notre Dame, Ind.
University of Oklahoma, Norman, Okla.

University of Oregon, Eugene, Oreg.
University of Pennsylvania, Philadelphia, Pa.
University of Pittsburgh, Pittsburgh, Pa.
University of Porto Rico, San Juan, P. R.
University of Rochester, Rochester, N. Y.
University of South Carolina, Columbia, S. C.
University of South Dakota, Vermilion, S. Dak.
University of Tennessee, Knoxville, Tenn.
University of Texas, Austin, Tex.
University of the South, Sewanee, Tenn.
University of the State of New York, Albany, N. Y.
University of Vermont and Agricultural and Mechanical College, Burlington, Vt.
University of Washington, Seattle, Wash.
University of Wisconsin, Madison, Wis.
University of Wyoming, Laramie, Wyo.
Vassar College, Poughkeepsie, N. Y.
Virginia Polytechnic Institute, Lexington, Va.
Washington Academy of Sciences.
Washington and Lee University, Lexington, Va.
Washington Board of Trade, Washington, D. C.
Washington Branch of the Archæological Institute of America.
Washington Branch of the National Institute of Electrical Engineers.
Washington Society of Engineers.
Washington University, St. Louis, Mo.
Wellesley College, Wellesley, Mass.
Wesleyan University, Middletown, Conn.
Western Association of Electrical Inspectors.
Western Reserve University, Cleveland, Ohio.
Western Society of Engineers.
West Virginia University, Morgantown, W. Va.
Whitman College, Walla Walla, Wash.
Williams College, Williamstown, Mass.
Wilmington Chamber of Commerce, Wilmington, Del.
Wisconsin State Board of Industrial Education, Racine, Wis.
Worcester Polytechnic Institute, Worcester, Mass.
Yale University, New Haven Conn.
Yale University Law School, New Haven, Conn.

APPENDIX VI.

THE EXECUTIVE COMMITTEE OF ORGANIZATION OF THE UNITED STATES AND THE COMMITTEES OF THE NINE SECTIONS OF THE CONGRESS.

WILLIAM PHILLIPS, Third Assistant Secretary of State, Chairman ex officio.

JAMES BROWN SCOTT, Secretary, Carnegie Endowment for International Peace, Vice-Chairman.

WILLIAM H. WELCH, President, National Academy of Sciences, Honorary Vice-Chairman.

JOHN BARRETT, Director General, Pan American Union.

W. H. BIXBY, Brigadier General, United States Army, retired.

PHILANDER P. CLAXTON, Commissioner of Education.

WILLIAM C. GORGAS, Surgeon General, United States Army.

WILLIAM H. HOLMES, Head Curator, Smithsonian Institution.

HENNEN JENNINGS, Former President, London Institution of Mining and Metallurgy.

GEORGE M. ROMMEL, Chief, Animal Husbandry Division, Bureau of Animal Industry, Department of Agriculture.

L. S. ROWE, President, American Academy of Political and Social Science.

ROBERT S. WOODWARD, President, Carnegie Institution of Washington.

Executive Officers:

JOHN BARRETT, Secretary General.

GLEN LEVIN SWIGGETT, Assistant Secretary General.

SECTION I.

Anthropology.

WILLIAM H. HOLMES, Head Curator, Smithsonian Institution, Washington, D. C., Chairman.

ALEŠ HRDLIČKA, United States National Museum, Washington, D. C., Secretary.

Subsection 1.—Ethnology.

F. W. HODGE, Bureau of American Ethnology, Smithsonian Institution, Washington, D. C.

WALTER HOUGH, United States National Museum, Washington, D. C.

ROLAND B. DIXON, Harvard University, Cambridge, Mass.

FREDERICK STARR, University of Chicago, Chicago, Ill.

ALBERT ERNEST JENKS, University of Minnesota, Minneapolis, Minn.

FRANZ BOAS, Columbia University, New York City.

A. L. KROEBER, University of California, Berkeley, Cal.

ELIZABETH DUNCAN PUTNAM, Davenport Academy of Sciences, Davenport, Iowa.

ALICE C. FLETCHER, 214 First Street SE., Washington, D. C.

STEWART CULIN, Museum of the Brooklyn Institute of Arts and Sciences, Brooklyn, N. Y.

S. A. BARRETT, Milwaukee Public Museum, Milwaukee, Wis.

GEORGE A. DORSEY, Field Museum of Natural History, Chicago, Ill.

C. F. LUMMIS, Southwest Museum, Los Angeles, Cal.

JOHN R. SWANTON, Bureau of American Ethnology, Smithsonian Institution, Washington, D. C.

PLINY E. GODDARD, Bureau of American Ethnology, Smithsonian Institution, Washington, D. C.

WALDO LINCOLN, American Antiquarian Society, Worcester, Mass.

J. C. BRANNER, Leland Stanford Junior University, Stanford University, Cal.

Subsection 2.—Archæology.

J. WALTER FEWKES, Bureau of American Ethnology, Smithsonian Institution, Washington, D. C.

C. C. WILLOUGHBY, Peabody Museum of American Archæology and Ethnology, Harvard University, Cambridge, Mass.

GEORGE B. GORDON, University of Pennsylvania Museum, Philadelphia, Pa.

HIRAM BINGHAM, Yale University, New Haven, Conn.

WARREN K. MOOREHEAD, Department of Archæology, Phillips Academy, Andover, Mass.

M. H. SAVILLE, Heye Museum, 10 East Thirty-third Street, New York City, N. Y.

ARTHUR C. PARKER, State Museum, University of the State of New York, Education Building, Albany, N. Y.

T. MITCHELL PRUDDEN, American Ethnological Society, New York City, N. Y.

SYLVANUS G. MORLEY, Carnegie Institution of Washington, Washington, D. C.

EDGAR L. HEWETT, School of American Archæology, Museum of New Mexico, Santa Fe, N. Mex.

H. M. WHELPLEY, Missouri Historical Society, St. Louis, Mo.

W. C. MILLS, Ohio State University, Columbus, Ohio.

Subsection 3.—Physical Anthropology.

GEORGE GRANT MACCURDY, Yale University Museum, New Haven, Conn.

FRANK BAKER, Georgetown University, Washington, D. C.

D. S. LAMB, United States Army Medical Museum, Washington, D. C.

W. C. FARABEE, National History Museum, New York City, N. Y.

ALEŠ HRDLIČKA, United States National Museum, Washington, D. C.

F. P. MALL, Johns Hopkins University, Baltimore, Md.

F. B. TSMANEU, Mission House, Catholic University of Washington, Washington, D. C.

SECTION II.

Astronomy, Meteorology, and Seismology.

ROBERT S. WOODWARD, President Carnegie Institution of Washington, Washington, D. C., Chairman.

Subsection A.—Astronomy and Geodesy.

ROBERT S. WOODWARD, President, Carnegie Institution of Washington, Washington, D. C., Chairman.

SOLON I. BAILEY, Harvard College Observatory, Cambridge, Mass., Secretary.

Subsection B.—Meteorology and Seismology.

CHARLES F. MARVIN, Chief United States Weather Bureau, Washington, D. C., Chairman.

C. FITZHUGH TALMAN, United States Weather Bureau, Washington, D. C., Secretary.

SECTION III.

Conservation of Natural Resources.

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Dr. FRANCISCO BUITRAGO DÍAZ, Assistant Secretary.

ADOLFO CÁRDENAS.

PANAMA.

Cooperating Committee:

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TOMÁS GUARDIA.
ALFREDO MELHADO.
CRISTÓBAL RODRÍGUEZ.
Dr. CIRO L. URIOLA.

PARAGUAY.

The Minister of Public Instruction, Dr. JUAN F. PÉREZ, assisted in the preparatory work of the Congress in that country.

PERU.

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Dr. JOSÉ MATÍAS MANZANILLA.
Dr. ERNESTO ODRIOZOLA.
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EL SALVADOR.

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Ing. PEDRO S. FONSECA, Director General Statistics, Secretary.
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RODOLFO BARÓN.
Dr. SALVADOR CALDERÓN.
Dr. VÍCTOR JEREZ, Professor of the School of Jurisprudence and Social Sciences.
ALBERTO MASFERRER.
Dr. J. MAX OLANO, Member of the Faculty of Medicine, Chemistry, and Pharmacy.

URUGUAY.

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HAMLET BAZZANO, Director National Meteorological Institute, Secretary.

Dr. FRANCISCO GHIGLIANI, of the Financial and Administrative Board of Montevideo, Secretary.

Ing. ROBERTO SUNDBERG, Director of the "Defensa Agrícola," Secretary.

LUIS MORANDI, Director Physical and Meteorological Institute, Treasurer.

Ing. JUAN BARCIA TRELLES.

Dr. ERNESTO BAUZÁ.

Ing. VÍCTOR BENAVÍDEZ.

Dr. ALBERTO BOERGER.

Dr. ALBERTO BRIGNOLE.

Ing. FEDERICO E. CAPURRO.

Dr. LATHAM CLARKE.

Dr. GARIBALDI DEVICENZI.

Dr. F. FERNÁNDEZ ENCISO.

Dr. ERNESTO FERNÁNDEZ ESPIRO.

Ing. ALFREDO JONES BROWN.

Dr. MAURICIO LAMME.

Ing. BAUTISTA LASGOYTI.

ENRIQUE LEGRAND.

Ing. PEDRO B. MAGNOU.

Dr. EDUARDO MARTÍNEZ.

Lieut. Col. SILVESTRE MATO, in charge of the Military Geographical Service of Uruguay.

Ing. JUAN MONTEVERDE, Professor University of Montevideo.

Dr. RAFAEL MUÑOZ XIMÉNEZ.

Dr. ALFREDO NAVARRO.

Dr. ABEL J. PÉREZ, National Inspector of Primary Instruction.

Dr. MANUEL QUINTELA.

Ing. ALFREDO RAMOS MONTERO.

Dr. AMÉRICO RICARDONI.

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Ing. Juan Schroeder.
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Dr. Francisco A. Rísquez, Secretary, National Board of Instruction.
Dr. José Santiago Rodríguez.
Dr. Elías Toro.
Dr. Luis Ugueto, Director Cagigal Observatory.

APPENDIX VII.

MEMBERS OF THE CONGRESS.

HONORARY MEMBERS.

Their Excellencies the Presidents and Vice Presidents of the twenty-one Republics participating in the Second Pan American Scientific Congress.

Their Excellencies the Ambassadors Extraordinary and Plenipotentiary, and Envoys Extraordinary and Ministers Plenipotentiary representing the Latin American Republics in Washington.

The Ambassadors and Ministers of the United States accredited to the Latin American Republics.

The Honorable Secretary of State.
The Honorable Secretary of the Treasury.
The Honorable Secretary of War.
The Honorable Attorney General.
The Honorable Postmaster General.
The Honorable Secretary of the Navy.
The Honorable Secretary of the Interior.
The Honorable Secretary of Agriculture.
The Honorable Secretary of Commerce.
The Honorable Secretary of Labor.

ALVARADO, JUAN ANTONIO, Consul of Chile, Baltimore, Md.
ÁLVAREZ, ALEJANDRO, Santiago, Chile, South America.
ÁLVAREZ SALAS, RAFAEL, Cali-Cauca, Colombia, South America.
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ANDERSON, LUIS, Apartado 238, San Jose, Costa Rica, Central America.
ANGELL, JAMES R., University of Chicago, Chicago, Ill.
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ARTIGO, G., Consul of Salvador, New York, N. Y.

AUGHINBAUGH, W. E., Leslie's Weekly, New York, N. Y.
BAILEY, L. H., Ithaca, N. Y.
BALLIVIÁN, M. V., Director of Statistics, La Paz, Bolivia, South America.
BARALT, LUIS A., Habana, Cuba.
BARCELÓ, SIMÓN, Caracas, Venezuela, South America.
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BRECKENRIDGE, HENRY, Washington, D C.
BRENES MESÉN, ROBERTO, San José, Costa Rica, Central America.
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CASASÚS, JOAQUÍN D. (Died in New York February 25).
CASTILLO, RAFAEL DEL, Vice Consul Colombia, New York City, N. Y.
CAVALCANTI, AMARO, President Brazilian Society of International Law, Rio de Janeiro, Brazil, South America.
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GARAY, NARCISO, Panama City, Panama.
GARCÍA KOHLY, His Excellency JUAN DE DIOS, La Habana, Cuba.
GONZÁLEZ, LUIS FELIPE, San José, Costa Rica, Central America.
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ROPER, DANIEL C., Assistant Postmaster General, Washington, D. C.
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SMITH, HOKE, United States Senate, Washington, D. C.
SMITH, WILLIAM R., House of Representatives, Washington, D. C.
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UNDERWOOD, E. MARVIN, Assistant Attorney General, Washington, D. C.
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URRUTIA, RICARDO J., Tegucigalpa, Honduras, Central America.
VALDEZ, RAMÓN N., Panama City, Panama.
VALENCIA, FRANCISCO, Consul of Colombia, San Francisco, Cal.
VARDAMAN, JAMES K., United States Senate, Washington, D. C.
VARGAS, MOISÉS, Santiago, Chile, South America.
VELOZ GOITICOA, NICOLÁS, Caracas, Venezuela, South America.
VENABLE, FRANCIS PRESTON, Chapel Hill, N. C.
WALLACE, WILLIAM, Jr., Assistant Attorney General, Washington, D. C.
WALSH, THOMAS J., United States Senate, Washington, D. C.

WARREN, CHARLES, Assistant Attorney General, Washington, D. C.
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WILLIAMS, LYDIA ADAMS, Department of Agriculture, Washington, D. C.
WILSON, HENRY LANE, Indianapolis, Ind.
YBARRA, ANDRÉS, Caracas, Venezuela, South America.

MEMBERS OF SOCIETIES, INSTITUTIONS AND COMMITTEES, AND WRITERS OF PAPERS.

ABBOTT, ALEXANDER A., Professor, University of Pennsylvania, Philadelphia, Pa.
Delegate—Society of American Bacteriologists.

ABBOTT, CHARLES GREELEY, Smithsonian Institution, Washington, D. C.
Delegate—Astrophysical Observatory.

ABRAMS, D. A., Lewis Institute, Chicago, Ill.
Delegate—Lewis Institute.

ACKER, G. N., American Academy of Medicine, 1101 Westinghouse Building, Pittsburgh, Pa.
Alternate—American Academy of Medicine.

ACOSTA, His Excellency JULIO, Minister of Foreign Affairs, San José, Costa Rica, Central America.
President, Cooperating Committee, Costa Rica.

ADAMS, FRANK, United States Office of Public Roads and Rural Engineering, Department of Agriculture, Washington, D. C.
Paper presented: *Irrigation Districts in the United States.*

ADAMS, FRANKLIN, Pan American Union, Washington, D. C.
Delegate—Pan American Union.

ADAMS, S. S., 1801 Connecticut Avenue NW., Washington, D. C.
Delegate—American Pediatric Society.

ADAMS, T. S., Tax Commissioner, State of Wisconsin, Madison, Wis.
Member of Committee, Subsection 4, Section IX.

ADAMS, THOMAS S., Professor, Cornell University, Ithaca, N. Y.
Paper presented: *The Taxation of Business.*

ADLER, FELIX, National Child Labor Commission, 105 East Twenty-second Street, New York City, N. Y.
Delegate—National Child Labor Commission.

AGOTE, LUIS, Director Clinical Medical Institute, Buenos Aires, Argentina, South America.
Paper presented: *Transfusion of Blood.*

AGRAMONTE, ARÍSTIDES, Professor of Bacteriology and Pathology, University of Habana, Habana, Cuba.
Official Delegate of Cuba.
Delegate—Economic Society Friends of the Country of Habana.
Member Cooperating Committee, Cuba.
Paper presented: *Review of the Present Yellow Fever Situation.*

AGUILAR BARQUERO, F., President of the College of Lawyers, San José, Costa Rica, Central America.
Cooperating Committee, Costa Rica.

AGUILAR BATRES, RODOLFO, Guatemala City, Guatemala.
Papers presented:
A Pan American Reform in the Calendar; Decimal, Perpetual, and Tropical.
Method of Diagonal Notation.

AHERN, GEORGE P., 2806 Cathedral Avenue, Washington, D. C.
Member of Committee, Subsection 2, Section III.
Paper presented: *The Lesson of Forestry in the Philippine Islands.*

ALCÍVAR, MIGUEL H., Professor, University of Guayaquil, Guayaquil, Ecuador.
Official Delegate of Ecuador.
Paper presented: *Health Regulations.*

ALDERMAN, EDWIN A., President University of Virginia, Charlottesville, Va.
Member of Committee, Subsection 5, Section IV.

ALDRICH, MORTON, Professor, Tulane University, New Orleans, La.
Delegate—Tulane University.

ALEXANDER, W. H., United States Weather Bureau, Cleveland, Ohio.
Paper presented: *Thunderstorms.*

ALEY, ROBERT J., President University of Maine, Orono, Me.
Delegate—University of Maine.
Member of Committee, Subsection 8, Section IV.

ALFARO, RICARDO J., Panama City, Panama.
President Cooperating Committee, Panama.

ALLEN, B. C., United States Naval Institute, Annapolis, Md.
Delegate—United States Naval Institute.

ALLEN, EDWIN W., Chief, Office of Experiment Stations, States Relations Service, Department of Agriculture, Washington, D. C.
Alternate—States Relations Service.
Vice Chairman of Section III.

ALLEY, JOHN, Professor, University of Oklahoma, Norman, Okla.
Alternate—University of Oklahoma.

ALSBERG, CARL L., Chief, Bureau of Chemistry, Department of Agriculture, Washington, D. C.
Delegate—American Society of Biological Chemists.
Member of Committee, Subsection 4, Section VII.
Papers presented:
The Preservation of Foodstuffs.
Food Supply.

ÁLVAREZ, ALEJANDRO, Counselor for the Legations of Chile in Europe, Santiago, Chile, South America.
Official Delegate of Chile.
Honorary Member.
Papers presented:
New Orientations in the Study of International Law.
Relation of International Law to National Law in American Countries.

ÁLVAREZ HERAS, JORGE, Bogota, Colombia, South America.
Paper presented: *Contributions to Colombian Meteorology.*

ÁLVAREZ S., ABRAHAM, Managua, Nicaragua, Central America.
Secretary Cooperating Committee, Nicaragua.
Paper presented: *The Desirability of Uniform Laws Throughout the Pan American Countries for the Protection of Antiquities, the Systematic Promotion of Anthropological Research, and the Collection and Scientific Treatment of Museum Materials.*

ALVORD, JOHN W., Consulting Engineer, Hartford Building, Chicago, Ill.
Alternate—Illinois Society of Engineers and Surveyors.

ALZAMORA, ISAAC, Former Dean of the Faculty of Philosophy and Literature of the University of Lima, Lima, Peru, South America.
Chairman of the Official Delegation of Peru.
Delegate—University of San Marcos.
Honorary Member.

AMBROSETTI, JUAN B., Director Ethnological Museum, Faculty of Philosophy and Letters, National University, Viamonte 430, Buenos Aires, Argentina, South America.

Official Delegate of Argentina.

Delegate—

Faculty of Philosophy and Literature of the National University of Buenos Aires.

Faculty of Agronomy and Veterinary Medicine of the National University of Buenos Aires.

Museum of the University of La Plata.

National University of Cordoba.

Museum of Natural History of Buenos Aires.

Board of American History and Numismatics.

Argentine Scientific Society.

Argentine Geographical Institute.

Papers presented:

The Figures of the So-called Scarifiers of Northwest Argentina.

The Vases of Pukara Tilkara of the Pelike Type as compared with those of Machu Pichu.

AMES, HERMAN V., Dean University of Pennsylvania, Philadelphia, Pa.

Delegate—Association of American Universities.

AMES, J. S., Professor, Johns Hopkins University, Baltimore, Md.

Delegate—Johns Hopkins University.

Alternate—American Physical Society.

AMUNÁTEGUI SOLAR, DOMINGO, Rector, University of Chile, Santiago, Chile.

Paper presented: *To What Extent is an Exchange of Students and Professors between American Republics Desirable? What is the Most Effective Basis for a System of Exchange? What Plans Should Be Adopted in Order to Secure Mutual Recognition of Technical and Professional Degrees by American Republics?*

ANADÓN, LORENZO, Hotel Majestic, Buenos Aires, Argentina, South America.

Paper presented: *The Best Methods to Facilitate Commercial Transactions between Manufacturers of the United States and Spanish-American Merchants.*

ANCÍZAR, ROBERTO, Secretary of the Colombian Legation in the United States, The Hamilton, Washington, D. C.

Chairman of the Official Delegation of Colombia.

AUDAIN, L., Director Bacteriological Laboratory, Port au Prince, Haiti.

Paper presented: *Study of the So-called Fruit Fever.*

ANDARA, JOSÉ L., Caracas, Venezuela, South America.
Official Delegate of Venezuela.

ANDERSON, GEORGE G., 436 Consolidated Realty Bldg., Los Angeles, Cal.
Paper presented: *Use of Irrigation Waters as Sources of Power.*

ANDERSON, JOHN F., New Brunswick, N. J.
Alternate—Federation American Societies for Experimental Biology.
American Physiological Society.
Paper presented: *The Important Steps in the Development of Our Knowledge of Anaphylaxis.*

ANDERSON, LUIS, San Jose, Costa Rica, Central America.
Delegate—School of Law of Costa Rica.
Honorary Member.

ANDERSON, W. M., Professor, University of Louisville, Louisville, Ky.
Delegate—University of Louisville.

ANDRADE, CÉSAR D., Guayaquil, Ecuador, South America.
Official Delegate of Ecuador.
Paper presented: *Petroleum Resources of Ecuador.*

ANDRADE, JOSÉ JULIÁN, Internationalist, Quito, Ecuador, South America.
Member Cooperating Committee, Ecuador.

ANDREWS, ARTHUR I., Tufts College, Mass.
Delegate—Tufts College.

ANDREWS, ETHAN A., Professor, Johns Hopkins University, Baltimore, Md.
Delegate—American Society of Zoologists.

ANDREWS, JOHN B., 121 East Twenty-third Street, New York City, N. Y.
Delegate—American Association for Labor Legislation.
Paper presented: *Employment of Married and Pregnant Women and the Protection and Promotion of the Health of Female Wage Earners.*

ANGULO, RAFAEL MARÍA, Amargura 77, Habana, Cuba.
Official Delegate of Cuba.
Delegate—Bar Association of Habana.
Paper presented: *Presidential and Parliamentary Government on the American Continent in State and Nation.*

ANTHONY, C. C., Pennsylvania Railroad, Broad Street Station, Philadelphia, Pa.
Alternate—Railway Signal Association.

ANTHONY, G. C., Dean Engineering School, Tufts College, Mass.
Member of Committee, Subsection 6, Section IV.

ARAUJO-JORGE, A. G., of the Foreign Office of Brazil, Rio de Janeiro, Brazil, South America.
Honorary Member.
Paper presented: *The Diplomatic History of Brazil in the Sixteenth and Seventeenth Centuries.*

ARCE, LACARZE LUIS, La Paz, Bolivia, South America.
Paper presented: *Method in Pedagogic Science.*

ARCTOWSKI, H., New York Public Library, New York City, N. Y.
Paper presented: *The Pleionian Fluctuations of Climate.*

ARIAS, HARMODIO, Panama City, Panama.
Member Cooperating Committee, Panama.

ARMANET FRESNO, DANIEL, Civil Engineer, Santiago, Chile, South America.
Delegate—Secretary of the Official Delegation of Chile.

ARNOLD, RALPH, Consulting Geologist and Engineer, Los Angeles, Cal.
Paper presented: *Conservation of the Oil and Gas Resources of the Americas.*

ARNOLD, SARAH LOUISE, Dean Simmons College, Boston, Mass.
Chairman of Subsection 4, Section IV.

AUBERT, A., Managua, Nicaragua, Central America.
Paper presented: *How Can a Nation Prepare in the Most Effective Manner Its Young Men for a Business Career That is to be Pursued at Home or in a Foreign Country?*
(*a*) In schools that are a part of the public-school system.
(*b*) In schools of private endowment.
(*c*) In special business schools of private ownership.

AYALA, EUSEBIO, Calle Estrella 265, Asuncion, Paraguay, South America.
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Delegate—University of Illinois.

BABSON, ROGER W., Wellesley Hills, Mass.
Delegate Babson Statistical Organization.
Papers presented:
Why Latin-American Municipal and State Bonds Should be Quoted in New York.
The Proper Use of Business Experts from the Business World in Class Instruction in Domestic and Foreign Commerce.

BAILEY, SOLON I., Harvard University, Cambridge, Mass.
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Alternate—Bureau of Labor Statistics.

BALDWIN, SIMEON E., New Haven, Conn.
Chairman of Subsection 2, Section VI.
Member of Committee, Subsection 1, Section VI.
Member of Committee, Subsection 3, Section VI.
Papers presented: *Should International Law be Codified? And if so, Should it be Done Through Governmental Agencies or by Private Scientific Societies?*
Inaugural Discourse, Subsection 2, Section VI.

BALDY, JOHN M., 2219 De Lancey Street, Philadelphia, Pa.
Paper presented: *Medical Education in the United States.*

BALL, CARLETON R., Department of Agriculture, Washington, D. C.
Delegate—American Society of Agronomy.

BALLOU, SIDNEY, Colorado Building, Washington, D. C.
Delegate—Honolulu Chamber of Commerce.

BANCROFT, HOWLAND, Mining Geologist, Denver, Colo.
Paper presented: *Bolivian Tin.*

BARALT, LUIS A., Professor, Institute of Habana, Habana, Cuba.
Honorary Member.
Papers presented:
What Remains to be Done for Education.
Elementary Education.

BARBA, FRANCISCO, Professor of Chemistry, Central University of Quito, Quito, Ecuador, South America.
Member Cooperating Committee, Ecuador.

BARBA, WILLIAM P., Vice President, Midvale Steel Company, Philadelphia, Pa.
Delegate—American Manufacturers' Export Association.

BARBARA, B., Bacteriological Institute of The National Department of Hygiene, Buenos Aires, Argentina, South America.
Paper presented: *Cultivation of the Parasite of Rabies by Noguchi's Method.*

BARBARENA, SANTIAGO I., San Salvador, El Salvador, Central America.
Papers presented:
The Principal Geophysical Bases of Modern Seismology.
Report of the Meteorological and Seismologic Service of El Salvador.

BARBATTO, GERMÁN, Montevideo, Uruguay, South America.
Paper presented: *Introduction to the Study of the Solar Relations of Meteorology.*

BARBOUR, F. A., 1120 Tremont Building, Boston, Mass.
Alternate—Ohio Engineering Society.

BARBOUR, THOMAS, Harvard University, Cambridge, Mass.
Delegate—Harvard University.

BARCELÓ, SIMÓN, Caracas, Venezuela.
Delegate—Press of Venezuela.
Honorary Member.

BARCIA TRELLES, JUAN, Montevideo, Uruguay, South America.
Member Cooperating Committee, Uruguay.

BARD, HARRY ERWIN, Mills Building, 15 Broad Street, New York City, N. Y.
Delegate—Pan American Society of the United States of America.
Paper presented: *Things which Interest Students in the United States, as Compared with the Interest of Similar Students in Europe and Latin America*

BARNARD, JOB., 1306 Rhode Island Avenue NW., Washington, D. C.
Delegate—Historical Society of the District of Columbia.

BARNES, EDWARD A., Charleston Chamber of Commerce, Charleston, W. Va.
Delegate—Charleston Chamber of Commerce.

BARNES, NOBLE P., 208 Maryland Avenue NE., Washington, D. C.
Alternate—American Therapeutic Society.

BARNUM, M. K., S. M. P. Baltimore & Ohio Railway, Baltimore, Md.
Delegate—American Railway Master Mechanics' Association.

BARÓN, GUSTAVO S., Professor of Bacteriology, San Salvador, El Salvador, Central America.
Member Cooperating Committee, El Salvador.

BARÓN, RODOLFO, San Salvador, El Salvador, Central America.
Member, Cooperating Committee, El Salvador.

BARRETT, JOHN, Director General, Pan American Union, Washington, D. C.
United States Official Delegate.
Delegate—Pan American Union.
Secretary General.
Member of Executive Committee.

BARRETT, S. A., Curator, Department of Anthropology, Public Museum of the City of Milwaukee, Milwaukee, Wis.
Delegate—Public Museum of the City of Milwaukee.
Member of Committee, Subsection 1, Section I.

BARROWS, D. P., Dean, University of California, Berkeley, Cal.
Alternate—University of California.

BARTLETT, C. L., Cleveland Engineering Society, Cleveland, Ohio.
Delegate—Cleveland Engineering Society.

BARTLETT, J. KEMP, 108 South La Salle Street, Chicago, Ill.
Delegate—Commercial Law League of America.

BARTOW, EDWARD, Director, State Water Survey, Urbana, Ill.
Paper presented: *Water Supply.*

BARTSCH, PAUL, National Museum, Washington, D. C.
Delegate—Biological Society of Washington.
Member of Committee, Subsection 7, Section IV.
Paper presented: *The Premedical Education in Biology.*

BASCOM, FLORENCE, Bryn Mawr College, Bryn Mawr, Pa.
Delegate—Bryn Mawr College.

BASKERVILLE, CHARLES, New York City, N. Y.
Delegate—College of the City of New York.

BASS, C. C., 741 Carondelet Street New Orleans, La.
Alternate—American Society of Tropical Medicine.

BASSETT, C. E., Department of Agriculture, Washington, D. C.
Paper presented: *The Extent and Possibilities of Cooperation.*

BATRES JÁUREGUI, ANTONIO, 9 Avenida Sur 68, Guatemala City, Guatemala, Central America.
Honorary Member.
President Cooperating Committee, Guatemala.

BATT, WILMER R., State Registrar of Records, New York City, N. Y.
Paper presented: *Vital Statistics with Special Reference to New York City.*

BAUER, L. A., Director, Department of Terrestrial Magnetism, Carnegie Institution of Washington, Washington, D. C.
Paper presented: *Status of Magnetic Surveys in South America.*

BAUZÁ, ERNESTO, Montevideo, Uruguay, South America.
Member Cooperating Committee, Uruguay.

BAUZÁ, JULIO A., Montevideo, Uruguay, South America.
Paper presented: *Milk Dispensaries as a Means of Diminishing Infantile Mortality.*

BAWDEN, WILLIAM T., Bureau of Education, Washington, D. C.
Alternate—Bureau of Education.
Chairman, Subsection 9, Section IV.

BAYMA, TEODORO, Sao Paulo, Brazil, South America.
Paper presented: *Adrenalin in Amoebic Dysentery.*

BAZZANO, HAMLET, Director National Meteorological Institute, Montevideo, Uruguay, South America.
Secretary Cooperating Committee, Uruguay.
Papers presented:
General Organization of the Services of the National Meteorological Bureau of Uruguay.
The River Plata.

BEACH, JOHN K., Supreme Court of Errors of Connecticut, New Haven, Conn.
Paper presented: *The Relation of Public Law to International Law.*

BEACH, L. H., Customhouse, Cincinnati, Ohio.
Member of Committee of Section V.
Paper presented: *Shallow-draft Boat and Barge Transportation.*

BEAHAN, Mrs. WILLARD, 2213 Bellifield Avenue, Cleveland, Ohio.
Alternate—National Federation of College Women.

BEALE, JOSEPH H., Harvard University, Cambridge, Mass.
Delegate—Association of American Law Schools.

BEALS, E. A., United States Weather Bureau, Portland, Oreg.
Paper presented: *Forecasts of Weather Favorable to the Increase of Forest Fires.*

BEDER, ROBERTO, General Direction of Mines, Buenos Aires, Argentina, South America.
Paper presented: *Quantity and Quality of Tungsten Ores in Argentina.*

BEER, PAUL, Greater Des Moines Committee, Des Moines, Iowa.
Delegate—Iowa Engineering Society.
Greater Des Moines Committee.

BEHNEKE, NORMAN L., 6 Beacon Street, Boston, Mass.
Delegate—National Economic League.

BELL, ALEXANDER GRAHAM, 1331 Connecticut Avenue NW., Washington, D. C.
Delegate—American Association to Promote Teaching of Speech to the Deaf.

BELLIURE, CARLOS A., Cerrito 674, Montevideo, Uruguay, South America.
Official Delegate of Uruguay.

BENAVÍDEZ, VÍCTOR, Montevideo, Uruguay, South America.
Member Cooperating Committee, Uruguay.

BENGOCHEA, RAMÓN, Consul General, Guatemala, New York City, N. Y.
Delegate—Military Academy, Guatemala.

BENJAMIN, CHARLES H., Dean, Purdue University, La Fayette, Ind.
Paper presented: *Essential Physical Equipment for Engineering Education.*

BENNETT, CHARLES A., Bradley Polytechnic Institute, Peoria, Ill.
Member of Committee, Subsection 9, Section IV.

BENNETT, FRANCISCO ARAYA, Attorney at Law and State Professor, Valparaiso, Chile, South America.
Papers prepared:
How can a Nation Prepare in the Most Effective Manner its Young Men for a Business Career that is to be Pursued at Home or in a Foreign Country?
(*a*) In schools that are a part of the public-school system.
(*b*) In schools of private endowment.
(*c*) In special business schools of private ownership.
Preparation for a Business Career in Chile.
Latin American Standpoint on Business Education.

BENTON, GUY POTTER, President, University of Vermont, Burlington, Vt.
Delegate—
National Association of State Universities.
University of Vermont.

BENTON, J. R., University of Florida, Gainesville, Fla.
Delegate—University of Florida.

BERGER, MARION, United States Bureau of Education, Washington, D. C
Delegate—National Kindergarten Association.

BERKELEY, H. J., 1305 Park Avenue, Baltimore, Md.
Delegate—American Medical Society for the Study of Alcohol and Narcotics.

BERRA, C. P., Buenos Aires, Argentina, South America.
Paper presented: *Buccal Hygiene.*

BERRO GARCÍA, ADOLFO, Professor, University of Montevideo, Uruguay, South America.
Delegate—
Teachers' Association of Uruguay.
National Industrial School of Montevideo.
Honorary Member.
Paper presented: *International arbitration.*

BESNARD, JULIO, Chief of the Live Stock Sanitary Service, Santiago, Chile, South America.
Paper presented: *Are Uniform Regulations Feasible Among the Different American Countries for the Prevention of the Introduction and Dissemination of the Diseases of Different Animals?*

BETETA JOSÉ A., Guatemala City, Guatemala, Central America.
Member Cooperating Committee, Guatemala.

BICKNELL, ERNEST P., 1624 H Street NW., Washington, D. C.
Delegate—American Red Cross.

BIDGOOD, LEE, Professor, University of Alabama, University, Ala.
Delegate—University of Alabama.

BIDWELL, GEORGE E., Bureau of Chemistry, Department of Agriculture, Washington, D. C.
Alternate—Association of Feed Control.

BIGELOW, MAURICE A., Professor, Columbia University, New York City, N. Y.
Delegate—Teachers' College, Columbia University.

BIGELOW, W. D., 1739 H Street NW., Washington, D. C.
Paper presented: *The Value of Scientific Research and Laboratory Control in the Manufacture of Foods.*

BINGHAM, EUGENE C., Professor, Richmond College, Richmond, Va.
Delegate—Richmond College.

BINGHAM, HIRAM, Professor, Yale University, New Haven, Conn.
Delegate—
American Antiquarian Society.
Yale University.
Member of Committee, Subsection 2, Section I.
Papers presented:
The Incas and Their Culture.
An Inca Road and Several Hitherto Undescribed Ruins in the Urubamba Valley, Peru.
Some Extraordinary Trepanned Skulls Found This Year in the Urubamba Valley, Peru.

BISHOP, AVARD L., 66 Trumbull Street, New Haven, Conn.
Delegate—Yale University.

BISHOP, ERNEST S., 151 West Eighty-fifth Street, New York City, N. Y.
Alternate—American Medical Society for the Study of Alcohol and Narcotics.

BISHOP, F. L., Dean, School of Engineering, University of Pittsburgh, Pittsburgh, Pa.
Delegate—University of Pittsburgh.

BITTENCOURT, LIBERATO, Brazilian Historical and Geographical Institute, Rio de Janeiro, Brazil.
Paper presented: *Physical, Intellectual, and Moral Education.*

BIXBY, Gen. WILLIAM H., 1709 Lanier Place NW., Washington, D. C.
Official Delegate of the United States.
Delegate—
Engineers' Society of Western Pennsylvania.
Western Society of Engineers.
American Society for Testing Materials.
Member of Executive Committee.
Chairman of Section V.

BLAIR, W. R., United States Weather Bureau, Washington, D. C.
Paper presented: *Some Results of Aerological Observations.*

BLAKESLEE, GEORGE HUBBARD, Professor, Clark University, Worcester, Mass.
Delegate—Clark University.

BLANCHARD, ARTHUR H., Professor, Columbia University, New York City, N. Y.
Paper presented: *Highway Engineering.*

BLANCHARD, C. J., Statistician, United States Reclamation Service, Washington, D. C.
Paper presented: *Securing Settlers for Government Projects.*

BLEWETT, BEN, Superintendent of Schools, St. Louis, Mo.
Paper presented: *Essentials of an Effective Compulsory Attendance Law.*

BLUE, RUPERT, Public Health Service, Washington, D. C.
Delegate—United States Public Health Service.
Chairman of Subsection A, Section VIII.

BOAS, FRANZ, Professor, Columbia University, New York City, N. Y.
Official Delegate of the United States.
Delegate—American Folk-Lore Society.
Member of Committee, Subsection 1, Section I.
Paper presented: *The Racial Elements in the Modern Population of America.*

BOATWRIGHT, F. W., President, Richmond College, Richmond, Va.
Delegate—Richmond College.

BOERGER, ALBERTO, Director of the Experiment Station, La Estanzuela, Uruguay, South America.
Member Cooperating Committee, Uruguay.
Paper presented: *Phylotechnic Studies and Agricultural Experiments in La Estanzuela, Uruguay.*

BOGGS, MARIS A., Department of Public Instruction, Washington, D. C.
Alternate—Bureau of Commercial Economics.

BOLET, JULIO CÉSAR, Caracas, Venezuela, South America.
Paper presented: *What Should be the Place of Industrial Education in the School System of the American Republics? Should it be Supported by Public Taxation? Should it be Considered Under Separate Control? How and to What Extent May Industrial Schools Cooperate with Employers of Labor?*

BOLTON, REGINALD PELHAM, 55 Liberty Street, New York City, N. Y.
Delegate—American Society of Heating and Ventilating Engineers.

BOND, FRANK, 3127 Newark Street, Cleveland Park, D. C.
Alternate—United States Geographic Board.

BONILLA, CÉSAR, Tegucigalpa, Honduras, Central America.
Member Cooperating Committee, Honduras.

BORAH, WILLIAM E., United States Senator, Washington, D. C.
Delegate—Whitman College.

BORCHARD, EDWIN B., Librarian of the United States Supreme Court Library, Washington, D. C.
Paper presented: *How May Lawyers of One Country be Most Easily and Effectively Made Acquainted with the Laws of Another Country?*

BORDELLO, JULIUS, American Peat Society, Kingsbridge, N. Y.
Alternate—American Peat Society.

BORDEN, WILLIAM CLINE, George Washington University, Washington, D. C.
Chairman of Subsection 7, Section IV.

BOSCO, GUILLERMO A., Buenos Aires, Argentina, South America.
Paper presented: *Teratoma of the Tuber Cinereum.*

BOURLAND, A. P., 508 McLachlin Building, Washington, D. C.
Delegate—Southern Conference for Education and Industry.

BOUVÉ, CLEMENT L., of the Bar of the District of Columbia.
Secretary of Subsection 1, Section VI.
Paper presented: *The Study of International Law in American Countries and the Means by Which it May be Made More Effective.*

BOWDITCH, VINCENT Y., 506 Beacon Street, Boston, Mass.
Delegate—American Sanatorium Association.

BOWERMAN, H. B., Bureau of Lighthouses, Washington, D. C.
Alternate—Bureau of Lighthouses.

BOWIE, EDWARD HALL, Department of Agriculture, Washington, D. C.
Alternate—United States Weather Bureau.

BOWIE, WILLIAM, United States Coast and Geodetic Survey, Washington, D. C.
Alternate—Philosophical Society of Washington.
Papers presented:
Costs of Relative Gravity Determinations by Aid of Half-second Pendulums.
Costs of Primary Triangulation, Including Determinations of Latitude, Longitude, and Azimuth.

BOYD, DAVID R., President University of New Mexico, Albuquerque, N. Mex.
Delegate—University of New Mexico.

BOYD, W. K., Durham, N. C.
Delegate—Trinity College, Durham, N. C.

BRACAMONTE, EUSEBIO, President of the Court of Second Instance of the Western Section of Salvador, San Salvador, El Salvador, Central America.
Paper presented: *The Attitude of American Countries Toward International Arbitration and the Peaceful Settlement of International Disputes.*

BRAID, ANDREW, United States Geographic Board, Washington, D. C.
Delegate—United States Geographic Board.

BRAILEY, JAMES S., Jr., Brunswick, Ga.
Delegate—Brunswick Board of Trade.

BRAISTED, WILLIAM C., Navy Department, Washington, D. C.
Chairman Subsection D, Section VIII.

BRANCH, G. V., Office of Markets and Rural Organization, Washington, D. C.
Paper presented: *A Practical Market System for Our Large Cities.*

BRAND, CHARLES J., Department of Agriculture, Washington, D. C.
Delegate—Office of Markets and Rural Organization.
Chairman Subsection 7, Section III.
Paper presented: *The Effective Use of the Panama Canal in the Distribution of Products.*

BRANDON, EDGAR EWING, Dean Miami University, Oxford, Ohio.
Alternate—Miami University.
Paper presented: *Commercial Education in Latin America.*

BRANNER, JOHN C., Leland Stanford University, Stanford University, Cal.
Delegate—Leland Stanford University.
Member of Committee, Subsection 1, Section I.
Member of Committee, Subsection 3, Section VII.
Paper presented: *Recent Contributions to the Geology of Brazil, and Their Relations to the Development of the Country.*

BRASHEAR, JOHN A., 1954 Perryville Avenue, Pittsburgh, Pa.
Official Delegate of the United States.
Delegate—American Society of Mechanical Engineers.
Papers presented:
Progress of the Work, Optical and Mechanical, on the Seventy-two-inch Reflecting Telescope for the Canadian Observatory at Vancouver.
The Educational Value of Endowment for Public Schools.
An Evening with the Stars.

BRASIL, VITAL, Professor, University of Sao Paulo, Sao Paulo, Brazil, South America.
Delegate—Academy of Science, Art, and Letters of Campinas.
Honorary Member.
Paper presented: *Prophylaxis of Ophidism in America.*

BRAVO, CARLOS, Bogota, Colombia, South America.
Paper presented: *Relations between the Judicial and Legislative Powers.*

BREAUX, GUSTAVE A., Louisville Board of Trade, Louisville, Ky.
Delegate—Louisville Board of Trade.

BRECKENRIDGE, LESTER PAIGE, New Haven, Conn.
Delegate—Yale University.

BRECKINRIDGE, SOPHONSIBA, University of Chicago, Chicago, Ill.
Paper presented: *The Education of Women as Measured in Civic and Social Relations.*

BRENES MESÉN, ROBERTO, San José, Costa Rica, Central America.
Honorary Member.
Paper presented: *Direct Taxation in Costa Rica.*

BRIGGS, LYMAN J., United States Bureau of Plant Industry, Washington, D. C.
Paper presented: *The Water Requirement of Plants as Influenced by Environment.*

BRIGNOLE, ALBERTO, Montevideo, Uruguay, South America.
Member Cooperating Committee, Uruguay.

BRIN, RAÚL, Secretary, Agricultural Experiment Station, Panama City, Panama.
Paper presented: *The Conservation of the National Sources of Wealth; Agricultural, Irrigation, and Forest Culture.*

BRODIE, WALTER M., Mining Engineer and Metallurgist, The Batopilas Mining Company, New York City, N. Y.
Paper presented: *Metallurgy of Native Silver Ores in Southwestern Chihuahua.*

BROGGI, HUGO, Professor of Mathematical Analysis and Higher Mathematics, La Plata, Argentina, South America.
Paper presented: *The Teaching of General Mathematics in the University of La Plata.*

BRONFENBRENNER, J., Western Pennsylvania Hospital, Pittsburgh, Pa.
Paper presented: *Anaphylaxis and its Relation to Immunity.*

BROOKS, STRATTON D., President, University of Oklahoma, Norman, Okla.
Delegate—University of Oklahoma.

BROOKS, W. P., Massachusetts Agricultural College, Amherst, Mass.
Alternate—Massachusetts Agricultural College.

BROWN, ALFREDO JONES, Montevideo, Uruguay, South America.
Member Cooperating Committee, Uruguay.

BROWN, C. P., Glenolden, Pa.
Paper presented: *Hay Fever and Certain other Local Anaphylactic Phenomena Referable to the Respiratory Mucous Membranes.*

BROWN, EDGAR, Department of Agriculture, Washington, D. C.
Delegate—Association of Seed Analysts.

BROWN, ELMER E., Chancellor, New York University, New York City, N. Y.
Delegate—New York University.
Chairman of Subsection 2, Section IV.
Paper presented: *Historical Development of our Secondary Schools.*

BROWN, ERNEST, Yale University, New Haven, Conn.
Paper presented: *Determination of the Earth's Shape by Simultaneous Astronomical Observations in North and South America.*

BROWN, E. W., Professor, Yale University, New Haven, Conn.
Delegate—American Mathematical Society.

BROWN, GLENN, 806 Seventeenth Street NW., Washington, D. C.
Delegate—
American Institute of Architects.
Washington and Lee University.

BROWN, PHILIP MARSHALL, Princeton, N. J.
Delegate—Princeton University.

BROWN, ROME G., 1006 Metropolitan Life Building, Minneapolis, Minn.
Papers presented: *Laws and Regulations Regarding the Use of Water for all Purposes in North and South America.*

BRUNO, FÉLIX, Montevideo, Uruguay, South America.
Paper presented: *Inland Navigation.*

BRYAN, WILLIAM JENNINGS, Lincoln, Nebr.
Honorary Member.
Addressed Subsection 10, of Section IV.

BRYANT, SAMUEL W., Radio Service, Navy Department, Washington, D. C.
Delegate—United States Naval Radio Service.

BUCK, H. W., 49 Wall Street, New York City, N. Y.
Paper presented: *Present Status of Water Power Development.*

BUCK, SOLON J., Professor, University of Minnesota, Minneapolis, Minn.
Delegate—University of Minnesota.

BUITRAGO DÍAZ, FRANCISCO, Managua, Nicaragua, Central America.
Assistant Secretary Cooperating Committee, Nicaragua.
Paper presented: *To What Extent is Coeducation Desirable in Elementary Schools, High Schools, Colleges, and Universities?*

BULL, R. A., American Foundrymen's Association, Granite City, Ill.
Alternate—American Foundrymen's Association.

BULLARD, W. H. G., Radio Station, Radio, Va.
Delegate—United States Naval Radio Service.

BULLOCK, CHARLES J., Harvard University, Cambridge, Mass.
Member of Committee, Subsection 4, Section IX.

BUMPAS, ROBAH F., Laurinburg, N. C.
Delegate—Society for Practical Astronomy.

BUNGE, CARLOS OCTAVIO, Calle Villanueva 1129, Buenos Aires, Argentina, South America.
Delegate—
Argentine Society of International Law.
Faculty of Philosophy and Literature of the National University of Buenos Aires.
Faculty of Law and Social Sciences, of the National University of Buenos Aires.
Honorary Member.

BURGESS, EDWARD S., Professor, Hunter College, New York City, N. Y.
Delegate—Hunter College.

BURGESS, GEORGE K., Bureau of Standards, Washington, D. C.
Delegate—American Institute of Metals.
Alternate—Washington Academy of Science.

BURR, WILLIAM H., Professor, Columbia University, New York City, N. Y.
Paper presented: *The Relative Importance of General Training in Engineering Branches to Extreme Specialization.*

BURROWS, J. S., Norfolk, Va.
Paper presented: *Practical Difficulties in Conserving our Coal Supply.*

BURROWS, M., Johns Hopkins University Medical School, Baltimore, Md.
Paper presented: *Tissue Culture in Cancer.*

BUSHNELL, DAVID I., Jr., Bureau of American Ethnology, Washington, D. C.

BUSTAMANTE, ALBERTO, Quito, Ecuador, South America.
Member Cooperating Committee, Ecuador.

BUTLER, AMOS W., Room 93, Statehouse, Indianapolis, Ind.
Delegate—National Conference of Charities and Corrections.
Alternate—Indiana Academy of Sciences.

BUTLER, CHARLES HENRY, 1535 I Street, Washington, D. C.
Delegate—Washington Branch Archæological Institute of America.

BUTLER, NICHOLAS MURRAY, President, Columbia University, New York City, N. Y.
Delegate—Division of Intercourse and Education, Carnegie Endowment for International Peace.
American Association for International Conciliation.
Chairman of Subsection 5, Section IV.

BUTTE, O. G., University of Texas, Austin, Tex.
Delegate—University of Texas.

BUTTERFIELD, KENYON L., President, Massachusetts Agricultural College, Amherst, Mass.
Delegate—Massachusetts Agricultural College.
Paper presented: *Extension Education.*

BUTTERS, CHARLES, 6272 Chabot Road, Oakland, Cal.
Delegate—Mining and Metallurgical Society of America.

BUTTERWORTH, WILLIAM, DEERE & COMPANY, Moline, Ill.
Delegate—Illinois Manufacturers' Association.

BYERS, JOSEPH P., General Secretary, American Prison Association, Oakland, Cal.
Delegate—American Prison Association.
Alternate—National Committee on Provision for the Feebleminded.

CABALLERO, GUSTAVO A., 761 Harrison Avenue, Boston, Mass.
Delegate—Boston College.

CABEZAS, JOAQUIN, Santiago, Chile, South America.
Paper presented: *What Should be the Place of Industrial Education in the School System of the American Republics? Should it be Supported by Public Taxation? Should it be Considered Under Separate Control? How and to What Extent May Industrial Schools Cooperate With Employers of Labor?*

CABOT, RICHARD C., General Hospital, Boston, Mass.
Official Delegate of the United States.

CADY, WALTER GUYTON, Middletown, Conn.
Delegate—Wesleyan University.

CALCAÑO SÁNCHEZ, EDUARDO, Caracas, Venezuela, South America.
Member Cooperating Committee, Venezuela.

CALDERÓN, His Excellency IGNACIO, Envoy Extraordinary and Minister Plenipotentiary to the United States, Bolivian Legation, 1633 Sixteenth Street NW., Washington, D. C.
Chairman of the Official Delegation of Bolivia.

CALDERÓN, SALVADOR, San Salvador, El Salvador, Central America.
Member Cooperating Committee, El Salvador.

CALDWELL, B. W.
Paper presented: *Infectious Diseases in the Prison Camps of Europe.*

CALKINS, GARY N., Columbia University, New York City, N. Y.
Papers presented:
General Biology of the Protozoa Life Cycle.
Life Histories of Protozoa.

CALL, ARTHUR DEERIN, Colorado Building, Washington, D. C.
Delegate—American Peace Society.

CALLAHAN, J. M., Professor, University of West Virginia, Morgantown, W. Va.
Delegate—Association of Colleges and Preparatory Schools of the Southern States.
Honorary Member.

CALLBREATH, J. F., Munsey Building, Washington, D. C.
Delegate—American Mining Congress.
Member of Committee, Subsection 1, Section VII.
Paper presented: *Government Control of Minerals on Public Lands.*

CALLEJAS, MIGUEL, Director of the Mining Society, San Antonio de Oriente, Honduras, Central America.
Paper presented: *Concentration and Metallurgy at the San Antonio Mines.*

CAMERON, F. K., Department of Agriculture, Washington, D. C.
Delegate—Chemists Club.

CAMINETTE, A., Department of Labor, Washington, D. C.
Alternate—Bureau of Immigration.

CAMPBELL, J. P., University of Georgia, Athens, Ga.
Delegate—University of Georgia.

CAMPBELL, M. R., Geological Survey, Washington, D. C.
Chairman of Subsection 1, Section III.
Paper presented: *The Coals of the United States.*

CAMPBELL, P. L., President, University of Oregon, Eugene, Oreg.
Delegate—University of Oregon.

CAMPBELL, WILLIAM WALLACE, Director, Lick Observatory, Mount Hamilton, Cal.
Official Delegate of the United States.
Delegate—
American Astronomical Society.
American Association for the Advancement of Science.
Paper presented:
Work at Lick Observatory.
(*a*) At Mount Hamilton, Cal.
(*b*) In Chile, South America.

CAMPOS, His Excellency GUILLERMO, Minister of Honduras to Guatemala, Guatemala City, Guatemala, Central America.
Delegate—International Central American Bureau.
Paper presented: *Resources of Honduras and Its Commercial Development.*

CANADA, WILLIAM J., Bureau of Standards, Washington, D. C.
Delegate—Western Association of Electrical Inspectors.

CAÑEDO, RAFAEL, President, University of Cochabamba, Cochabamba, Bolivia, South America.

Paper presented: *Should Universities and Colleges Supported by Public Funds be Controlled by Independent and Autonomous Powers, or Should They be Controlled Directly by Central State Authority?*

CAPARÓ, JOSÉ ÁNGEL, Dean, University of Notre Dame, Notre Dame, Ind.

Delegate—

Academy of Forensic Practice of Peru.
University of Cuzco.
University of Notre Dame.

Papers presented:

Origin of the Indians of Central and South America.
Lexicology of the Names of the Indian God.

CAPELLA Y PONS, FRANCISCO, Calle Agraciada 812, Montevideo, Uruguay, South America.

Paper presented: *The Attitude of American Countries Toward International Arbitration and the Peaceful Settlement of International Disputes.*

CAPEN, SAMUEL P., Bureau of Education, Washington, D. C.

Delegate—Bureau of Education.
Vice Chairman of Section IV.

CAPURRO, FEDERICO A., Montevideo, Uruguay, South America.

Member Cooperating Committee, Uruguay.
Paper presented: *Fixed Submersible Bridges.*

CARBONELL, LUIS G. Y., Habana, Cuba.

Paper presented: *National Observatory of the Republic of Cuba.*

CARDELL, W. M., Washington Traction Co., Washington, D. C.

Alternate—American Railway Bridge and Building Association.

CÁRDENAS, ADOLFO, Managua, Nicaragua, Central America.

Member Cooperating Committee, Nicaragua.

CARDOSO, VICENTE LICINIO, Civil Engineer, Voluntarios da Patria 254, Rio de Janeiro, Brazil, South America.

Delegate—

National Polytechnic School of Rio de Janeiro.
Engineers Club.

CARPENTER, FREDERIC W., Professor, Trinity College, Hartford, Conn.
Alternate—Trinity College.

CARPENTER, WILLIAM HENRY, Columbia University, New York City, N. Y.
Paper presented: *Function of Graduate Schools in the Universities of the United States.*

CARR, HARVEY A., Professor, University of Chicago, Chicago, Ill.
Delegate—American Psychological Association.

CARRASCO B., EDUARDO, 243 West Thirty-ninth Street, New York City, N. Y.
Delegate—
National Agricultural Society of Chile.
Permanent Board of Local Government.
Paper presented: *The Effect of the Opening of the Panama Canal Upon the Traffic in Agricultural Products.*

CARROLL, MITCHELL, The Octagon, Washington, D. C.
Delegate—Archaeological Institute of America.
Alternate—American Philological Association.

CARTER, H. R., United States Public Health Service, Baltimore, Md.
Paper presented: *Immunity to Yellow Fever.*

CARVER, T. N., Harvard University, Cambridge, Mass.
Papers presented:
The Advisability of Collegiate Courses on Marketing and Distribution.
The Conservation of Human Energy.

CASASÚS, JOAQUIN D.[1]
Honorary Member.
Paper presented: *International Currency.*
Response on behalf of the Members of Section IX to the Address of Welcome by Hon. WILLIAM G. MCADOO.

CASSÁ, JORGE LE-ROY Y, Habana, Cuba.
Paper presented: *Development of Demographic Statistics in Cuba.*

CASTELLS, CONSTANCIO, Montevideo, Uruguay, South America.
Paper presented: *Etiology and Prevention of Tuberculosis from the Sociological Standpoint.*

[1] Died February 25, 1916, in New York.

CASTILLO LEDÓN, LUIS, Avenida de los Hombres Ilustres, 41, Mexico, D. F.
Official Delegate of Mexico.
Paper presented: *Archaeological Researches in Mexico.*

CASTRO QUESADA, His Excellency MANUEL, Envoy Extraordinary and Minister Plenipotentiary of Costa Rica to the United States, 1501 Sixteenth Street NW., Washington, D. C.
Official Delegate of Costa Rica.
Delegate—Bar Association of Costa Rica.

CASTRO RAMÍREZ, MANUEL, San Salvador, El Salvador, Central America.
Paper presented: *Are there Specific American Problems of International Law?*

CATLIN, WARREN BENJAMIN, Bowdoin College, Brunswick, Me.
Delegate—Bowdoin College.

CATONI, JULIO L., Buenos Aires, Argentina, South America.
Paper presented: *Buccal Hygiene.*

CATTELL, J. MCKEEN, Professor, Columbia University, New York City, N. Y.
Delegate—Eugenics Research Association.

CAUDELL, A. N., United States National Museum, Washington, D. C.
Delegate—Entomological Society of Washington.

CELESIA, ANTONIO F., Buenos Aires, Argentina, South America.
Paper presented: *Testicular Graft.*

CÉSAR, ALEJANDRO, Granada, Nicaragua, Central America.
Delegate—Nicaraguan Society of International Law.
Honorary Member.
Paper presented: *The Right to Safety in the High Seas for the Citizens of All the American Republics.*

CÉSPEDES, His Excellency CARLOS MANUEL DE, Envoy Extraordinary and Minister Plenipotentiary of Cuba to the United States, 1529 Eighteenth Street NW., Washington, D. C.
Chairman of the Official Delegation of Cuba.

CHACÓN, ANÍBAL, Buenos Aires, Argentina, South America.
Paper presented: *The Benzine Ring.*

CHAMBERLAIN, E. T., Bureau of Navigation, Department of Commerce, Washington, D. C.
Delegate—Bureau of Navigation of the Department of Commerce.

CHAMOT, E. M., Professor, Cornell University, Ithaca, N. Y.
Paper presented: *Water Supply.*

CHANDLER, A. E., State Water Commissioner, San Francisco, Cal.
Member of Committee, Subsection 4, Section III.
Paper presented: *The Doctrine of Riparian Rights (in the Western United States).*

CHANEY, A. U., 105 Hudson Street, New York City, N. Y.
Paper presented: *The Influence of Supply on Prices.*

CHANNING, JOHN PARKE, 61 Broadway, New York City, N. Y.
Delegate—Mining and Metallurgical Society of America.

CHAPIN, CHARLES V., Superintendent of Public Health, Providence, R. I.
Paper presented: *The Incidence of the Different Causes of Mortality in Providence, R. I.*

CHAPIN, F. STUART, Northampton, Mass.
Delegate—Smith College.

CHAPMAN, FRANK K., American Museum of Natural History, New York City, N. Y.
Delegate—American Museum of Natural History.

CHATARD, S. M., 1716 Rhode Island Avenue NW., Washington, D. C.
Delegate—George Washington University.

CHAVARRI, TITO, President of the College of Pharmacy, San José, Costa Rica, Central America.
Member Cooperating Committee, Costa Rica.

CHILCOTT, E. C., Bureau of Plant Industry, Department of Agriculture, Washington, D. C.
Delegate—South Dakota State College of Agriculture and Mechanic Arts.

CHILDE, A., Keeper of Archæology in the National Museum, Rio de Janeiro, Brazil, South America.
Papers presented:
On Certain Archæologic Studies.
On the Predynastic Egyptian Boats on Painted Vases.

CHOATE, JOSEPH H., 60 Wall Street, New York City, N. Y.
Member of Committee, Subsection 3, Section VI.

CHRISTIE, GEORGE IRVING, Professor, Purdue University, La Fayette, Ind.
Alternate—Purdue University.

CHURCH, A. T., Navy Department, Washington, D. C.
Alternate—American Society of Naval Engineers.

CHURCH, J. E., Reno, Nev.
Delegate—University of Nevada.
Paper presented: *Snow Surveying—Its Problems and Their Solution.*

CLAPP, CORNELIA M., Professor, Mount Holyoke College, South Hadley, Mass.
Delegate—Mount Holyoke College.

CLARK, A. HOWARD, Smithsonian Institution, Washington, D. C.
Delegate—National Society of the Sons of the American Revolution.

CLARK, APPLETON P., Jr., 816 Fourteenth Street NW., Washington, D. C.
Delegate—Washington Board of Trade.

CLARK, JOHN BATES, Columbia University, New York City, N. Y.
Delegate—Division of Economics and History, Carnegie Endowment for International Peace.
Member of Committee, Subsection 2, Section IX.
Paper presented: *Changes in Accepted Conclusions as to International Trade Due to, (1) Asiatic Development, (2) War.*

CLARK, WALTON, President Franklin Institute, Philadelphia, Pa.
Delegate—Franklin Institute.

CLARK, WILLIAM BULLOCK, Director Johns Hopkins University, Baltimore, Md.
Delegate—Association of American State Geologists.

CLARKE, F. W., Chemist, Geological Survey, Washington, D. C.
Delegate—Washington Academy of Science.
Paper presented: *The Interrelations of Pure and Applied Chemistry.*

CLARKE, JOHN M., Director State Museum, Albany, N. Y.
Delegate—
State Museum of New York.
Geological Society of America.
University of the State of New York.

CLARKE, LATHAM, Montevideo, Uruguay, South America.
Member Cooperating Committee, Uruguay, Uruguay.

CLAXTON, PHILANDER P., Commissioner of Education, Washington, D. C.
Official Delegate of the United States.
Member of Executive Committee.
Chairman of Section IV.

CLAYTON, H. H., Esmeralda 586, Buenos Aires, Argentina, South America.
Delegate—Argentine Meteorological Bureau.
Paper presented: *The Argentine Meteorological Service.*

CLEMENTS, F. E., Professor, University of Minnesota, Minneapolis, Minn.
Delegate—University of Minnesota.

CLEVENGER, G. H., 381 Hawthorne Avenue, Palo Alto, Cal.
Member of Committee, Subsection 2, Section VII.
Paper presented: *The Possibility of Treating by the Cyanide Process the Complex Silver or Silver-Gold Ores of the Latin-American Republics.*

CLINE, I. M., United States Weather Bureau, New Orleans, La.
Paper presented: *Temperature Conditions at New Orleans, as Influenced by Subsurface Drainage.*

CLINTON, L. A., Department of Agriculture, Washington, D. C.
Alternate—Society for the Promotion of Agricultural Science.

CLOWES, G. A. H., Research Hospital, Buffalo, N. Y.
Paper presented: *The Relation of Hay Fever to Anaphylaxis.*

CLUVERIUS, W. T., Navy Department, Washington, D. C.
Alternate—United States Naval Academy.

COBB, N. A., Bureau of Plant Industry, Department of Agriculture, Washington, D. C.
Member of Committee, Subsection 6, Section III.
Paper presented: *The Animal Organisms of the Soil; a New View of Soil Fertility.*

COCA, A. F., 414 East Twenty-sixth Street, New York, N. Y.
Paper presented: *Laboratory Diagnosis of Cancer—Sero-Diagnostic Methods in Cancer—The Reactions of Freund versus Dungern and Abderhalden.*

CODY, SHERWIN, Director, National Associated Schools of Scientific Business, Chicago, Ill.
Paper presented: *Statement as to Aim and Achievements of the National Associated Schools of Scientific Business Since Establishment.*

COLCORD, MABEL, 1335 Twelfth Street NW., Washington, D. C.
Alternate—Radcliffe College.

COLEMAN, J. F., 920 Hibernia Building, New Orleans, La.
Paper presented: *Best Type of Construction for Piers and Quays on Water Fronts of Great Depths and Swift Currents.*

COLLEY, BERNARD T., Superintendent, Braden Copper Company, New York, N. Y.
Paper presented: *Metallurgy at Braden.*

COLLINS, G. N., Bureau of Plant Industry, Department of Agriculture, Washington, D. C.
Member of Committee, Subsection 6, Section III.
Paper presented: *Tropical Varieties of Maize.*

COMALLONGA Y MENA, JOSÉ, Habana, Cuba.
Official Delegate of Cuba.
Paper presented: *Agricultural Education.*

COMPTÉ Y RIQUÉ, JULIO, Montevideo, Uruguay, South America.
Paper presented: *Substitution for the Euclid Postulate of Another Seemingly Evident.*

COMPTÉ Y RIQUÉ, Miss ENRIQUETA, Montevideo, Uruguay, South America.
Paper presented: *Should a Single School be the Local Unit of Administration in the District or in a Wider Sphere of Action?*

CONKLIN, E. G., Professor, Princeton University, Princeton, N. J.
Delegate—American Society of Naturalists.
Alternate—National Academy of Science.

CONN, H. W., Professor, Wesleyan University, Middletown, Conn.
Alternate—Society of American Bacteriologists.

CONWAY, JOHN S., Department of Commerce, Washington, D. C.
Delegate—Bureau of Lighthouses.

COOK, O. F., Department of Agriculture, Washington, D. C.
Delegate—Bureau of Plant Industry.
Paper presented: *Possibilities of Intensive Agriculture in Tropical America.*

COOK, S. J., Silver Creek, N. Y.
Paper presented: *Standardization of Vegetables.*

COOLEY, EDWIN G., Educator, Union League Club, Chicago, Ill.
Paper presented: *Should Public Vocational Training of High School Grades be Organized as a Course or Courses in the Regular High School, or in a Separate School Established Primarily for Vocational Training?*

COOLEY, MORTIMER E., Dean, College of Engineering, University of Michigan, Ann Arbor, Mich.
Delegate—University of Michigan.

COOLIDGE, ARCHIBALD CARY, Professor, Harvard University, Cambridge, Mass.
Delegate—
American Historical Association.
Harvard University.

COOPER, JOHN M., Catholic University, Washington, D. C.
Paper presented: *Fuegian and Chonoan Relations.*

CORBELLINI, ENRIQUE J., Buenos Aires, Argentina, South America.
Paper presented: *Treatment of Acute Appendicitis.*

CORBIN, WILLIAM H., Tax Commissioner, State of Connecticut, Hartford, Conn.
Member of Committee, Subsection 4, Section IX.

CÓRDOVA, His Excellency GONZALO S., Envoy Extraordinary and Minister Plenipotentiary of Ecuador to the United States, 604 Riverside Drive, New York, N. Y.
Chairman of the Official Delegation of Ecuador.
Delegate—
National College Benigno Malo.
Society of Jurisprudence and Literature.

COREA, LUIS FELIPE, 203 West Ninety-fourth Street, New York City, N. Y.
Delegate—Faculty of Law and Notarial Practice of Occidente and Septentrion.

CORRAL, JOSÉ ISAAC DEL, Habana, Cuba.
Paper presented: *New Property of Involution of Polygons Circumscribed and Inscribed to Conic Sections.*

CORTHELL, ELMER L., North Egremont, Mass.
Secretary of Section V.
Member of Committee, Section V.
Chairman, Subsection 1, Section V.
Papers presented:
Opportunities and Problems Confronting the Engineer in South America.
Contracting and Regulating Work at the Mouth of Rivers.

CORY, CHARLES B., Curator of Zoology, Field Museum of Natural History, Chicago, Ill.
Delegate—Field Museum of Natural History of Chicago.

COTTRELL, F. G., Chief Chemist United States Bureau of Mines, Washington, D. C.
Member of Committee, Subsection 2, Section VII.
Paper presented: *Recent Progress in Electrical Smoke Precipitation.*

COUDERT, FREDERICK R., 2 Rector Street, New York City, N. Y.
Member of Committee, Subsection 1, Section VI.

COUSIN, FRANCISCO, Bacteriologist, Quito, Ecuador, South America.
Member Cooperating Committee, Ecuador.

COVILLE, FREDERICK, Department of Agriculture, Washington, D. C.
Delegate—Cosmos Club.

COX, DANIEL H., 29 West Thirty-ninth Street, New York City, N. Y.
Secretary of Subsection on Marine Engineering, Section V.

COX, H. J., United States Weather Bureau, Chicago, Ill.
Paper presented: *The Influence of the Great Lakes upon the Movement of High and Low Pressure Areas.*

COX MÉNDEZ, RICARDO, former Minister of War and Member of the Chilean Congress, Santiago, Chile, South America.
Official Delegate of Chile.

COX, THOMAS, Consulting Engineer, 463 Ellita Avenue, Oakland, Cal.
Paper presented: *Methods and Costs of Obtaining Crude Petroleum.*

COYLE, GEORGE L., College of the Holy Cross, Worcester, Mass.
Delegate—College of the Holy Cross.

CRAIG, C. F., Fort Leavenworth, Kans.
Paper presented: *Classification of Parasitic Amœba of Man.*

CRAIGHEAD, E. B., Missoula, Mont.
Delegate—University of Montana.

CRAMPTON, HENRY E., Professor, New York Academy of Sciences, American Museum of Natural History, New York City, N. Y.
Delegate—New York Academy of Sciences.

CRAWLEY, J. T., Santiago de las Vegas, Cuba.
Delegate—Agricultural Experiment Station of Cuba.
Paper presented: *The Progress of Agricultural Science in Cuba.*

CRESSON, B. F., Jr., 75 Montgomery Street, Jersey City, N. J.
Paper presented: *Sandy Seacoast Shore Protection.*

CREW, HENRY, 1113 Davis Street, Evanston, Ill.
Delegate—Northwestern University.

CRIST, RAYMOND F., Deputy Commissioner, Bureau of Naturalization, Department of Labor, Washington, D. C.
Delegate—Bureau of Naturalization.

CROSBY, WALTER WILSON, Consulting Engineer, 1431 Munsey Building, Baltimore, Md.
Delegate—American Society of Municipal Improvements.
Alternate—Engineers Club of Baltimore.

CROSS, WILLIAM T., 315 Plymouth Court, Chicago, Ill.
Delegate—National Conference of Charities and Corrections.

CROWELL, J. F., Chamber of Commerce, New York City, N. Y.
Paper presented: *The Proper Use of Business Experts from the Business World in Class Instruction in Domestic and Foreign Commerce.*

CRUTCHFIELD, J. S., President Crutchfield & Wookfold, Pittsburgh, Pa.
Member of Committee, Subsection 7, Section III.
Paper presented: *Car Lot Distribution.*

CRUZ, FERNANDO, Guatemala City, Guatemala, Central America.
Paper presented: *Native Ruins of the Republic of Guatemala.*

CUADRA, CH., PEDRO J., The Burlington, Washington, D. C.
Official Delegate of Nicaragua.
Honorary Member.
Papers presented:
The Financial Problem of Nicaragua.
The Common Monetary Standard.

CUERVO MÁRQUEZ, CARLOS, Bogota, Colombia, South America.
Delegate—National Academy of History.
Honorary Member.
Paper presented: *Ethnographical Origins of Colombia.*

CUEVA, AGUSTÍN, Professor of Sociology, Central University of Quito, Quito, Ecuador, South America.
Member Cooperating Committee, Ecuador.

CUEVA G, MANUEL B, Professor of the National College, "Benigno Malo," Quito, Ecuador, South America.
Member Cooperating Committee, Ecuador.

CUEVAS, ENRIQUE, Counselor to the Chilean Embassy, 1013 Sixteenth Street NW., Washington, D. C.
Delegate—
Chilean Academy.
Society for the Development of Industry.
Paper presented: *The Nitrate Industry of Chile.*

CULIN, STEWART, Museum of the Brooklyn Institute of Arts and Sciences, Brooklyn, N. Y.
Member of Committee, Subsection 1, Section I.

CUMMINGS, ROBERT A., 225 Fourth Avenue, Pittsburgh, Pa.
Paper presented: *Soils as Regards Pressures Allowable Thereon.*

CURRIER, CHARLES WARREN, Bishop of Hetalonia, Holy Angels Academy, Fort Lee, N. J.

CUSTIS, VANDERVEER, 1314 L Street NW., Washington, D. C.
Delegate—University of Washington, Seattle, Wash.

DAGASSAN, EMILIO E., Centro Naval, Florida 801, Buenos Aires, Argentina.
Official Delegate of Argentina.
Paper presented:
Wireless Telegraph Service and Conventions.

DALE, HARRISON C., Professor, University of Wyoming, Laramie, Wyo.
Alternate—University of Wyoming.

DANFORTH, R. H., Cleveland, Ohio.
Alternate—Case School of Applied Science.

DAVENPORT, FRANCES GARDINER, Carnegie Institution, Washington, D. C.
Delegate—Radcliffe College.

DAVENPORT, FREDERICK M., Professor, Hamilton College, Clinton, N. Y.
Delegate—
American Association for Labor Legislation.
Hamilton College.

DAVIDSON, WILLIAM M., Fulton Building, Pittsburgh, Pa.
Delegate—Pittsburgh Chamber of Commerce.

DÁVILA, FAUSTO, Tegucigalpa, Honduras, Central America.
Official Delegate of Honduras.

DÁVILA, RAFAEL, Professor of Geodesy, Central University of Quito, Quito, Ecuador, South America.
Member Cooperating Committee, Ecuador.

DAVIS, A. P., Reclamation Service, Washington, D. C.
Member of Committee, Section V.
Paper presented: *Engineering Work of the United States Reclamation Service.*

DAVIS, CHANDLER, 1 Broadway, New York City, N. Y.
Paper presented: *Employment and Behavior of Concrete and Reinforced Concrete in Fresh and Saline Waters and Under Servitude of Waves in Exposed Positions.*

DAVIS, JESSE BUTRICK, Principal Central High School, Grand Rapids, Mich.
Member of Committee, Subsection 2, Section IV.

DAVIS, J. D., Chemist, Bureau of Mines, Washington, D. C.
Paper presented: *Standard Methods for Analyzing Coal and Coke.*

DAY, D. T., Consulting Chemist, United States Bureau of Mines, Washington, D. C.
Paper presented: *The Petroleum Resources of Mexico.*

DAY, WILLIAM R., Associate Justice of the Supreme Court of the United States, Washington, D. C.
Member of Committee, Subsection 1, Section VI.

DAYTON, J. H., Bureau of Navigation, Navy Department, Washington, D. C.
Delegate—Bureau of Navigation of the Navy Department.

DEARHOLT, HAYES E., University of Wisconsin, Madison, Wis.
Paper presented: *What Can Unofficial Effort Do for Public Health?*

DEJEAN, LEON, 1316 Rhode Island Avenue NW., Washington, D. C.
Official Delegate of Haiti.

DELAVÁN, PABLO T., Professor of the Faculty of Physical Science, Mathematics, and Astronomy, National University of La Plata, La Plata, Argentina, South America.
Paper presented: *Work with the Meridian Circle of the Observatory of La Plata.*

DE LIMA, E. A., President Battery Park National Bank, 2 Broadway, New York City, N. Y.
Delegate—Merchants Association of New York.

DELLEY, M., Caracas, Venezuela, South America.
Paper presented: *How Can a Nation Prepare in the Most Effective Manner Its Young Men for a Business Career That is to be Pursued at Home or in a Foreign Country?*
(*a*) In schools that are a part of the public-school system.
(*b*) In schools of private endowment.
(*c*) In special business schools of private ownership.

DEMARÍA, E. B., Buenos Aires, Argentina, South America.
Paper presented: *Vacunoterapia de la Conjuntivitis Granulosa.*

DENNIS, DAVID WORTH, Professor, Earlham College, Earlham, Ind.
Delegate Earlham College.

DENSMORE, FRANCES M.
Paper presented: *Recent Development in the Study of Indian Music.*

DESTRUGE, GUILLERMO, Director, General Telegraph and Telephone Lines, Quito, Ecuador, South America.
Member Cooperating Committee, Ecuador.
Paper presented: *Steel Tripod Telegraph Posts.*

DEUSTUA, ALEJANDRO O., Dean Faculty of Philosophy and Letters, University of San Marcos, Lima, Peru.
Delegate University of San Marcos.
Honorary Member.
Member Cooperating Committee, Peru.
Addressed the Subsection on *Elementary Education* of Section IV.

DEUSTUA, RICARDO, Mining Engineer, Lima, Peru, South America.
Paper presented: *The Petroleum Industry of Peru in 1916.*

DEUTSCH, MAURICE, 50 Church Street, New York City, N. Y.
Paper presented: *Hydroelectric Utilization at Niagara and Elsewhere.*

DEVEREAUX, W. C., United States Weather Bureau, Cincinnati, Ohio.
Paper presented: *Forecasts of River Stages and Floods in the Ohio Valley—Their Importance to Commerce and in Conserving Life and Property.*

DEVICENZI, GARIBALDI, Montevideo, Uruguay, South America.
Member Cooperating Committee, Uruguay.

DEVINE, EDWARD T., 105 East Twenty-second Street, New York City, N. Y.
Paper presented: *Pauperism.*

DEVOL, C. A., Brig. General, U. S. A., 1624 H Street NW., Washington, D. C.
Alternate—American Red Cross.

DEWEY, JOHN, Professor, Columbia University, New York, N. Y.
Paper presented: *The Need of Industrial Education in an Industrial Democracy.*

DE WOLF, F. W., State Geologist, Urbana, Ill.
Delegate—Association of American State Geologists.

DÍAZ, G., MANUEL, Panama City, Panama.
Delegate—National Conservatory of Music and Declamation.

DÍAZ LIRA, JAVIER, Member of the Chilean Bar, Santiago, Chile, South America.
Official Delegate of Chile.

DICKINSON, H. C., Bureau of Standards, Washington, D. C.
Alternate—American Society of Refrigerating Engineers.

DIEZ DE MEDINA, ALBERTO, La Paz, Bolivia, South America.
Delegate—Bolivian Society of International Law.
Honorary Member.

DIGGS, HERMAN M., New York University, Washington Square, New York, N. Y.
Delegate—New York University.

DIHIGO, JUAN MIGUEL, Habana, Cuba.
Delegate—Cuban Society of International Law.
Member Cooperating Committee, Cuba.

DILLINGHAM, FRANK T., Yale University, New Haven, Conn.
Delegate—College of Hawaii.

DILLON, JOHN H., Commissioner, Department of Foods and Markets, New York, N. Y.
Member of Committee, Subsection 7, Section III.

DINGER, HENRY C., Navy Department, Washington, D. C.
Delegate—Bureau of Steam Engineering.

DIXON, FRANK HAIGH, Home Building, Thirteenth and F Streets NW., Washington, D. C.
Delegate—Bureau of Railway Economics.

DIXON, ROLAND B., Harvard University, Cambridge, Mass.
Member of Committee, Subsection 1, Section I.

DIXON, SAMUEL G., Commissioner, Department of Health, Commonwealth of Pennsylvania, Harrisburg, Pa.
Delegate—Department of Health, Commonwealth of Pennsylvania.

DODD, W. F., Professor, University of Illinois, Urbana, Ill.
Alternate—American Political Science Association.

DODGE, RAYMOND, Professor, Wesleyan University, Middletown, Conn.
Delegate—American Psychological Association.

DODGE, RICHARD E., Professor, Teachers' College, Columbia University, New York, N. Y.
Paper presented: *How to Procure Adequately Prepared Instructors for Commercial Courses in Elementary Schools.*

DOHME, A. R. D., Chemist, Sharp & Dohme, Manufacturing Chemists, Baltimore, Md.
Alternate—Merchants and Manufacturers' Association of Baltimore.
Paper presented: *Pharmaceutical Products Made from Materials Native to Latin America.*

DOMINIAN, LEON, American Geographical Society, Broadway and One hundred and fifty-sixth Street, New York, N. Y.
Delegate—American Geographical Society.

DOMINICI, His Excellency SANTOS A., Envoy Extraordinary and Minister Plenipotentiary of Venezuela to the United States, 1406 Massachusetts Avenue NW., Washington, D. C.
Chairman of the Official Delegation of Venezuela.

DONNELLY, JAMES A., 132 Nassau Street, New York, N. Y.
Delegate—National District Heating Association.
Alternate—American Society of Heating and Ventilating Engineers.

DORNER, FRED H., Engineers' Society of Milwaukee, Milwaukee, Wis.
Alternate—Engineers' Society of Milwaukee.

DORSEY, GEORGE A., Field Museum of Natural History, Chicago, Ill.
Member of Committee, Subsection 1, Section I.

DOTTE, GUILLERMO, Montevideo, Uruguay, South America.
Paper presented: *Railways of Uruguay.*

DOTY, ALVAH H., 1123 Broadway, New York, N. Y.
Paper presented: *The Means by Which Infectious Diseases are Transmitted and Their Extermination.*

DOUGLAS, ROSS E., 120 Broadway, New York, N. Y.
Paper presented: *Metallurgy at Braden.*

DOUGLASS, A. E., University of Arizona, Tucson, Ariz.
Paper presented: *The Callendar Sunshine Recorder.*

DOWD, JEROME, Professor, University of Oklahoma, Norman, Okla.
Delegate—University of Oklahoma.

DOWNING, AUGUSTUS S., State Department of Education, Albany, N. Y.
Papers presented:
Plans for Securing a Mutual Recognition of Technical and Professional Degrees Granted by Institutions of the First Rank in the Several American Republics.
State Control of Medical Licensure.

DRAKE, C. ST. CLAIRE, State Board of Health, Springfield, Ill.
Delegate—State Board of Health of Illinois.

DRINKER, HENRY STURGIS, President of Lehigh University, South Bethlehem, Pa.
Delegate—Lehigh University.

DRYDEN, JAMES, Professor, Agricultural College, Corvallis, Oreg.
Delegate—American Association of Instructors and Investigators in Poultry Husbandry.

DUANE, WILLIAM, Medical School, Harvard University, Cambridge, Mass.
Paper presented: *Radium in Experimental Cancer.*

DUBLIN, LOUIS I., Statistician, Metropolitan Life Insurance Company, New York, N. Y.
Paper presented: *Vital Statistics in Relation to Life Insurance.*

DULLES, JOHN FOSTER, 49 Wall Street, New York, N. Y.
Paper presented: *Are there Specific American Problems of International Law?*

DUNCAN, ALBERT GREENE, 45 Milk Street, Boston, Mass.
Delegate—National Association of Cotton Manufacturers.

DUNCAN, DAVID SHAW, University of Denver, University Park, Colo.
Delegate—University of Denver.

DUNCAN, JEPHTA B., Panama City, Panama.
Secretary Cooperating Committee, Panama.

DUNLOP, J. P., United States Geological Survey, Washington, D. C.
Paper presented: *The Conservation of Metals by the Recovery of Scrap or Used Metals.*

DUNN, ARTHUR WILLIAM, 3408 Thirty-fourth Place NW., Washington, D. C.
Delegate—American Civic Association.

DUNN, GANO, 43 Exchange Place, New York, N. Y.
Delegate—American Institute of Electrical Engineers.

DUNNING, JOHN C., 359 Brook Street, Providence, R. I.
Delegate—Brown University.

DURÁN, SIXTO MARÍA, Director National Conservatory of Music, Quito, Ecuador, South America.
Member Cooperating Committee, Ecuador.
Paper presented: *The Fine Arts in the Public Instruction in America*

DURAND, E. DANA, University of Minnesota, Minneapolis, Minn.
Delegate—American Statistical Association.
Member of Committee, Subsection 4, Section IX.

DURÓN, RÓMULO E., Public Education, Secretary, Tegucigalpa, Honduras, Central America.
Honorary Member.
Paper presented: *Plans for Securing a Mutual Recognition of Technical and Professional Degrees Granted by Institutions of the First Rank in the Several American Republics.*

DYSON, C. W., Navy Department, Washington, D. C.
Delegate American Society of Naval Engineers.

EAGLE, J. E., United States House of Representatives, Washington, D. C.
Delegate—Houston (Tex.) Chamber of Commerce.

EARLE, RALPH, Naval Academy, Annapolis, Md.
Delegate—
United States Naval Institute.
United States Naval Academy.

ECHEGOYEN, HORACIO, Santiago, Chile, South America.
Paper presented: *The Attitude of the Government in the Matter of National Forests.*

ECHEVARRÍA, EMILIO, President of the Faculty of Medicine, San José, Costa Rica, Central America.
Member Cooperating Committee, Costa Rica.

ECK, W. J., Southern Railway, Washington, D. C.
Delegate—Railway Signal Association.

ECKEL, E. C., Washington, D. C.
Paper presented: *Cement Production in the United States.*

EDER, PHANOR J., Secretary, Comparative Law Bureau, 60 Wall Street, New York City.
Official Delegate of Colombia.
Delegate—
Comparative Law Bureau.
Colombian Academy of Jurisprudence.
Paper presented: *Mining Laws of Colombia.*

EDSALL, DAVID L., Harvard Medical School, Boston, Mass.
Paper presented: *Dangerous Trades and the Bearing of Industry Upon Medicine.*

EDSON, JOHN JOY, Washington Loan & Trust Company, Washington, D. C.
Delegate—United States Chamber of Commerce.

EDWARDS, HOWARD, President, Rhode Island State College, Kingston, R. I.
Delegate—Rhode Island State College.

EDWARDS, WARRICK R., Homes Building, Washington, D. C.
Delegate—American Railway Bridge and Building Association.

EGBERT, JAMES C., Columbia University, New York City.
Paper presented: *How to Procure Adequately Prepared Instructors for Commercial Courses in Colleges and Universities.*

EGLIN, W. C. L., Vice President, Philadelphia Electric Light Company, Philadelphia, Pa.
Alternate—National Electric Light Association.

EICHELBERGER, WILLIAM S., Naval Observatory, Washington, D. C.
Delegate—Philosophical Society of Washington.

EICHORN, ADOLPH, Bureau of Animal Industry, Department of Agriculture, Washington, D. C.
Delegate—United States Live Stock Sanitary Association.

EIGENMANN, CARL H., Dean of Graduate School, Indiana University, Bloomington, Ind.
Delegate—Indiana University.
Indiana Academy of Sciences.

EILERS, KARL, Metallurgical Engineer, New York, N. Y.
Member Committee, Subsection 2, Section VII.

ELIOT, Dr. CHARLES W., President Emeritus, Harvard University, Cambridge, Mass.
Paper presented: *The Changes Needed in American Secondary Education.*

ELLIOTT, C. G., Consulting Drainage Engineer, MacLachlen Building, Washington, D. C.
Delegate—Illinois Society of Engineers and Surveyors.

ELY, CHARLES R., United States National Museum, Washington, D. C.
Alternate—Entomological Society of Washington.

ELY, RICHARD THEODORE, Professor, University of Wisconsin, Madison, Wis.
Delegate—University of Wisconsin.
Paper presented: *Conservation and Economic Theory.*

EMERSON, FREDERICK V., Professor, Louisiana State University, Baton Rouge, La.
Delegate—Louisiana State University.

EMERY, HENRY C., Yale University, New Haven, Conn.
Paper presented: *The Economic Bearing of Future Trading in Agricultural Commodities.*

EMERY, JAMES A., Union Trust Building, Washington, D. C.
Delegate—National Association of Manufacturers.

EMERY, Hon. LUCILIUS A., formerly Chief Justice of Maine, Ellsworth, Me.
Member Committee, Subsection 2, Section VI.
Paper presented: *The Effect on American Public Law of Our Written Constitutions, (a) In Their Bearing on the Sovereignty of the State.*

EMIGH, E. D., United States Weather Bureau, Augusta, Ga.
Paper presented: *The Principles Involved in Predicting High Water Stages in "Flashy" Streams, with Special Reference to the Scheme for the Savannah River at Augusta, Ga.*

EMMONS, W. H., State Geologist of Minnesota, University of Minnesota.
Delegate—University of Minnesota.
Paper presented: *The Conservation of Copper.*

ERICKSON, HALFORD, Chairman, Railroad Commission of Wisconsin, Madison, Wis.
Papers presented:
Regulation and Control of Water Power as a Public Utility by State Commissions.
State Regulation of Water Power.

ESCOBAR CAMPUZANO, FRANCISCO, Mining Engineer, Colombia; 29 Broadway, New York, N. Y.
Delegate—
University of Antioquia—
National School of Mines.

ESCOBAR LARRAZÁBAL, MELITÓN, Civil Engineer, 272 Carrera 7a, Bogota, Colombia, South America.
Delegate—Colombian Engineering Society.
Paper presented: *Government Geographical Work in Colombia.*

ESCOMEL, E., Lima, Peru, South America.
Paper presented: *Human Blastomycosis in Peru and Bolivia.*

ESPINOSA PALACIOS, ALFREDO, Professor National Institute "Mejía," Quito, Ecuador, South America.
Member Cooperating Committee, Ecuador.

ESPINOSA TAMAYO, ALFREDO, Guayaquil, Ecuador, South America.
Paper presented: *The problem of Education in Ecuador.*

ESQUERRÉ, PEDRO, Montevideo, Uruguay, South America.
Paper presented: *Introduction to the Study of the Solar Relations of Meteorology.*

ESQUIVEL OBREGÓN, TORIBIO, Former Minister of Finance of Mexico, 176 Sterling Place, Brooklyn, N. Y.
Honorary Member.
Paper presented: *The Necessity of Adopting Uniform Principles in Banking in the American Countries as a Means of Approximation to Uniform Systems.*

ESTABROOK, L. M., Chief, Bureau of Crop Estimates, Department of Agriculture, Washington, D. C.
Member of Committee, Subsection 7, Section III.

ETCHEGOYEN, FRANCISCO, Habana, Cuba.
Paper presented: *Are Uniform Regulations Feasible Among the Different American Countries for the Prevention of the Introduction and Dissemination of the Diseases of Different Animals?*

ETCHEPARE, BERNARDO, Professor of Psychiatry, University of Montevideo, Camino Millán 296, Montevideo, Uruguay, South America.
Official Delegate of Uruguay.
Paper presented: *Education of the Nervous Children.*

EVANS, POWELL, 517 Arch Street, Philadelphia, Pa.
Delegate—National Fire Protection Association.

EVERLEY, HAROLD E., Special Student, Bradley Polytechnic Institute, R. A., Peoria, Ill.
Papers presented:
Industrial Education.
What Should be the Place of Industrial Education in the School System of the American Republics? Should it be Supported by Public Taxation? Should it be Considered Under Separate Control? How and to What Extent May Industrial Schools Cooperate with Employers of Labor?

EWING, J., Cornell University Medical College, New York City.
Paper presented: *Pathology of Experimental Cancer.*

EWING, THOMAS, Commissioner of Patents, Washington, D. C.
Delegate—Patent Office, Department of the Interior.

EVERLY, ELMER KENDALL, Vermilion, S. Dak.
Delegate—University of South Dakota.

FACIO, JUSTO A., Chief of Section of Public Instruction, San José, Costa Rica, Central America.
Secretary, Cooperating Committee, Costa Rica.

FAHEY, JOHN H., former President, United States Chamber of Commerce, Boston, Mass.
Delegate United States Chamber of Commerce.
Remarks before Joint Session of Section IV and Section IX.

FAIRCHILD, DAVID, Bureau of Plant Industry, Department of Agriculture, Washington, D. C.
Delegate Society for the Promotion of Agricultural Science.
Chairman of Subsection 6, Section III.
Paper presented: *Plant Introduction Opportunities Open to All the Americas.*

FAIRCHILD, HERMAN LEROY, Professor, University of Rochester, Rochester, N. Y.
Delegate—
University of Rochester.
New York State Waterways Association.

FALCONER, BOLIVAR L., United States Civil Service Commission, Washington, D. C.
Delegate—United States Civil Service Commission.

FARABEE, W. C., National History Museum, New York, N. Y.
Member of Committee, Subsection 3, Section I.

FARIS, R. L., United States Coast and Geodetic Survey, Washington, D. C.
Delegate—United States Coast and Geodetic Survey.

FARQUHAR, A. B., A. B. Farquhar Company, York, Pa.
Delegate—
National Implements and Vehicles Association.
United States Chamber of Commerce.

FARRAND, LIVINGSTON, President University of Colorado, Boulder, Colo.
Delegate—
University of Colorado.

FARRELL, J. A., former President, National Foreign Trade Council, 71 Broadway, New York, N. Y.
Delegate—National Foreign Trade Council.
Paper presented: *Preparation for Trade, Domestic and Foreign: From the Standpoint of the Business Man.*

FARRINGTON, FREDERICK ERNEST, Professor, Columbia University, New York, N. Y.
Paper presented: *Commercial Education in Germany.*

FASSIG, O. L., United States Weather Bureau, Washington, D. C.
Paper presented: *The Duration and Intensity of Tropical Rains.*

FAUNTLEROY, ARCHIBALD M., 1734 P Street NW., Washington, D. C.
Delegate—Naval Hospital of the Navy Department.

FAY, ALBERT H., Mining Engineer, United States Bureau of Mines, Washington, D. C.
Secretary Section VII.
Paper presented: *Mine Accidents and Uniform Records.*

FEATHERSTON, J. T., Commissioner of Street Cleaning, Municipal Building, New York, N. Y.
Paper presented: *Collection and Disposal of Municipal Refuse.*

FEINMANN, ENRIQUE, Professor, National College and Normal School of Buenos Aires, Buenos Aires, Argentina, South America.
Paper presented: *Social Medicine and the Work Problems in the Argentine Republic.*

FELS, ARTHUR B., Chamber of Commerce, Portland, Me.
Delegate—Chamber of Commerce.

FELT, D. E., Felt and Tarrant Manufacturing Company, Chicago, Ill.
Alternate—Illinois Manufacturers' Association.

FERGUSON, LEWIS R., Bellevue Court Building, Philadelphia, Pa.
Alternate—Association of American Portland Cement Manufacturers.

FERNÁNDEZ ENCISO, F., Montevideo, Uruguay, South America.
Member Cooperating Committee, Uruguay.

FERNÁNDEZ ESPIRO, ERNESTO, Montevideo, Uruguay, South America.
Member Cooperating Committee, Uruguay.

FERNÁNDEZ, JUAN SANTOS, President, Academy of Medical, Natural, and Physical Sciences of Habana, Prado 105, Habana, Cuba.
Official Delegate of Cuba.
Delegate—
Academy of Medical, Physical, and Natural Sciences of Habana.
Medical Press Association of Habana.
Paper presented: *Antirabic vaccination in Habana, with Statistics Compared with Those of Other Nations.*

FERNÁNDEZ, MAURO, Assistant Director of the Rockefeller Foundation in Costa Rica. San José, Costa Rica, Central America,
Paper presented: *The Influence of Ankilostomiasis on the Agricultural Prosperity and on the Infant Mortality.*

FERREIRA, CLEMENTE, President of the Paulista League against Tuberculosis, San Paulo, Brazil, South America.
Paper presented: *The Progress of the Anti-tuberculosis Fight in Brazil.*

FERRELL, JOHN A., 61 Broadway, New York, N. Y.
Alternate—International Health Commission, Rockefeller Foundation.

FEWKES, J. WALTER, Ethnologist, Bureau of American Ethnology, Smithsonian Institution, Washington, D. C.
Delegate—Bureau of American Ethnology.
Member of Committee, Subsection 2, Section I.
Papers presented:
The Pueblo Culture and Its Relationships.
A New Type of Ruin Lately Excavated in the Mesa Verde National Park, Colorado.

FIALLO CABRAL, ARMANDO, Professor, Central University, Santo Domingo, Dominican Republic.
Paper presented: *A Study of the Treatment of Puerperal Infection by the Use of Prolonged Luke-Warm Baths.*

FIELDNER, A. C., Bureau of Mines, Pittsburgh, Pa.
Paper presented: *Standard Methods for Analyzing Coal and Coke.*

FINCH, GEORGE A., Business Manager, American Journal of International Law, Carnegie Endowment for International Peace, 2 Jackson Place, Washington, D. C.
Delegate—Division of International Law, Carnegie Endowment for International Peace.

FINE, HENRY B., Professor, Princeton University, Princeton, N. J.
United States Official Delegate.
Delegate—American Mathematical Society.

FINLAY, J. R., 52 Williams Street, New York, N. Y.
Paper presented: *Value of Mining Property.*

FINLEY, JOHN H., Commissioner of Education of the State of New York, Albany, N. Y.
Chairman of Subsection I, "Elementary Education," of Section IV.

FINNEY, JOHN H., 509 Metropolitan Bank Building, Washington, D. C.
Alternate—American Institute of Electrical Engineers.
Alternate Chairman, Subsection 3, Section V.
Member of Committee, Subsection 3, Section III.

FIPPIN, ELMER O., Professor, Cornell University, Ithaca, N. Y.
Delegate—National Drainage Congress.

FIRMIN, EBERLE, Port au Prince, Haiti.
Official Delegate of Haiti.

FISH, ELMER H., Supervisor of Educational Department, The Norton Company, Worcester, Mass.
Paper presented: *Why Should an Industrial Corporation Undertake Educational Work on Behalf of Its Employees?*

FISH, STUYVESANT, 52 Wall Street, New York City.
Alternate—American Railway Association.

FISHER, CASSIUS A., Consulting Geologist, Denver, Colo.
Paper presented: *The Migration of Oil Through Small Fissures and Faults.*

FISHER, H. W., Standard Underground Cable Company, Perth Amboy, N. J.
Paper presented: *Underground Cables.*

FISHER, IRVING, Professor, Yale University, New Haven, Conn.
Paper presented: *What Can Unofficial Effort do for Public Health?*

FITZ-GERALD, JOHN D., University of Illinois, Urbana, Ill.
Paper presented: *Things Which Interest Students in the United States, as Compared with the Interest of Similar Students in Europe and Latin America.*

FITZ SIMON, SANTIAGO H., Professor, International School, Alsina 1587, Buenos Aires, Argentina, South America.
Paper presented: *How Can a Nation Prepare in the Most Effective Manner Its Young Men for a Business Career That is to be Pursued at Home or in a Foreign Country?*
(*a*) In schools that are a part of the public school system.
(*b*) In schools of private endowment.
(*c*) In special business schools of private ownership.

FLAGG, STANLEY G., Jr., Stanley G. Flagg & Co., Philadelphia, Pa.
Delegate—American Foundrymen's Association.

FLAGLER, CLEMENT ALEX. F., United States Engineers Office, War Department, Washington, D. C.
Delegate—United States Engineers Office.

FLANNERY, M. MARKHAM, National Tax Association, Topeka, Kans.
Delegate—
National Tax Association.
Federal Trade Association.

FLEIUSS, MAX, Perpetual Secretary to the Historical and Geographical Institute of Brazil, Rio Janeiro, Brazil, South America.
Paper presented: *The Leading Literary and Scientific Associations of Brazil.*

FLENNING, ARTHUR H., Throop College, Pasadena, Cal.
Delegate—Throop College.

FLETCHER, Miss ALICE C., 214 First Street SE., Washington, D. C.
Delegate—Archæogical Institute of America.
Member of Committee, Subsection 1, Section I.

FLEURY, LUIS, San Salvador, El Salvador, Central America.
Papers presented:
Mining, Metallurgy, and Economic Geology of Salvador.
General Geology of El Salvador and Its Relations to Mining.

FLINN, ALFRED D., Deputy Chief Engineer, Board of Water Supply of the City of New York, New York, N. Y.
Delegate—
Municipal Engineers Society of the City of New York.
New England Waterworks Association.
Paper presented: *Reservoirs for Municipal Water Supply.*

FLINT, E. R., University of Florida, Gainesville, Fla.
Delegate—University of Florida.

FOLKMAR, DANIEL, Department of Commerce, Washington, D. C.
Delegate—Anthropological Society of Washington.
Paper presented: *The United States Census of Immigrant Stocks.*

FOLLIN, JAMES W., State Board of Health, Lansing, Mich.
Delegate Michigan State Board of Health.

FONSECA, PEDRO S., Director of Statistics, San Salvador, El Salvador, Central America.
Secretary, Cooperating Committee, El Salvador, Central America.
Papers presented:
Report of Vital Statistics in El Salvador.
Commercial Relations between El Salvador and the United States.

FONTAINA, PABLO, Montevideo, Uruguay, South America.
Paper presented: *Natural Resources and the Commercial and Economic Development of Uruguay.*

FOOS, CHARLES S., Superintendent Public Schools, Reading, Pa.
Delegate—National Federation of State Teachers' Associations.

FORD, W. W., Professor, Johns Hopkins University, Baltimore, Md.
Delegate—Federation of American Societies for Experimental Biology.
American Physiological Society.

FOREST, ROBERT W. DE, National Housing Association, New York, N. Y.
Paper presented: *Buildings for Human Occupancy.*

FORT, MIGUEL, Lima, Peru, South America.
Paper presented: *Recent Progress in Metallurgical Practice in Peru.*

FORTIER, SAMUEL, Office of Public Roads and Rural Engineering, Department of Agriculture, Washington, D. C.
Chairman, Subsection 4, Section III.
Paper presented: *Irrigation in the United States.*

FOSTER, JOHN W., 1323 Eighteenth Street, Washington, D. C.
Member of Committee, Subsection 1, Section VI.

FOSTER, JULIO, Santiago, Chile, South America.
Paper presented: *The Mining Code of Chile.*

FOSTER, T. J., President International Correspondence Schools, Scranton, Pa.
Paper presented: *Statement as to Aim and Achievements Since Establishment of International Correspondence Schools.*

FOULK, FRED B., 40 Mount Vernon Street, Boston, Mass.
Alternate—Federation of International Polity Clubs.

FOULKE, WM. D., President, National Municipal League, Richmond, Ind.
Delegate—National Municipal League.

FOURNIÉ, EMILIO, Montevideo, Uruguay, South America.
Paper presented: *What Are the Elements of an Effective Law on Compulsory Attendance to School?*

FOWLE, FREDERICK E., Smithsonian Institution, Washington, D. C.
Alternate—Astrophysical Observatory.

FOWLER, ROBERT LUDLOW, Surrogate of New York, 26 West Tenth Street, New York City, N. Y.
Member of Committee, Subsection 2, Section VI.
Paper presented: *Is There an American Public Law That Can be Differentiated from That of Other Continent.*

FRANCIS, JOHN, Jr., Chief, Education Division, Office of Indian Affairs, Interior Department, Washington, D. C.
Delegate—United States Indian Office.

FRANKENFELD, H. C., United States Weather Bureau, Washington, D, C.
Papers presented:
Sleet and Ice Storms in the United States.
Fog Forecasting in the United States.

FRANZ, SHEPHERD IVORY, Government Hospital for the Insane, Washington, D. C.
Delegate—
American Psychological Association.
Government Hospital for the Insane.

FRANZENSTEIN, the BARON of, Tegucigalpa, Honduras, Central America.
Paper presented: *The Problem of International Monetary Exchange and the Most Adequate Means of Establishing the Direct Monetary Exchange between the Countries of the American Continent.*

FREIRE DE BRITO, CHRYSANTO, Rio de Janeiro, Brazil, South America.
Paper presented: *Are There Specific American Problems of International Law?*

FUCHS, FEDERICO, Lima, Peru, South America.
Member Cooperating Committee, Peru.
Paper presented: *Concentration by Flotation.*

FULLER, J. E., Eastern Commerce Teachers' Federation, Wilmington, Del.
Delegate—National Commercial Teachers' Federation.

FULLER, P. E., United States Office of Public Roads and Rural Engineering, Washington, D. C.
Paper presented: *Uniformity of Distribution of Moisture in Soils.*

FULTON, JOHN S., Secretary State Board of Health, Baltimore, Md.
Delegate—Conference of State and Provincial Boards of Health of North America.
Paper presented: *The Accuracy and Completeness of Compiled Vital Statistics in the United States.*

FUNK, CASIMIR, General Memorial Hospital, New York City, N. Y.
Paper presented: *Application of Chemistry to Cancer Problems.*

FURLONG, CHARLES W., Pierce Building, Copley Square, Boston, Mass.
Papers presented:
The Alaculoofs and Yaglans of Tierra del Fuego.
The Onas and Haush of Tierra del Fuego.

FURST, CLYDE, Carnegie Foundation for the Advancement of Teaching, New York City, N. Y.
Delegate—Carnegie Foundation for the Advancement of Teaching.
Paper presented: *Discussion of the Steady Movement Toward Making University Teaching a Separate Profession in Law, Medicine, Theology, Science, etc.*

GABASTOU, J., Buenos Aires, Argentina, South America.
Paper presented: *The Suprarenal Glands in Normal and Pathological Pregnancy.*

GADSDEN, P. H., Charleston Chamber of Commerce, Charleston, S. C.
Delegate—Charleston (S. C.) Chamber of Commerce.

GAILOR, THOMAS F., Bishop of Tennessee, Memphis, Tenn.
Delegate—The Business Men's Club of Memphis.

GAINES, C. C., President, Eastman Business College, Poughkeepsie, N. Y.
Paper presented: *Business Colleges.*

GAJARDO REYES, ISMAEL, Subdirector, Observatory and Head of Astrographic Department, Santiago, Chile, South America.
Paper presented: *The Astrographic Catalogue, Zones 17° to 23°.*

GALÁN, Rev. ANTONIO, S. J., Woodstock College, Woodstock, Md.
Paper presented: *Climatic Fluctuations in Historic Times.*

GALDAMES, LUIS, Santiago, Chile, South America.
Paper presented: *The Aims of Secondary Education.*

GALHARRET, Miss MARGUERITE, San Salvador, El Salvador, Central America.
Paper presented: *To What Extent Should Elementary Education be Supported by Local Taxation and to What Extent by State Taxation? What Should be the Determining Factors in the Distribution of Support?*

GALLEGOS, FELIPE, Secretary to the Faculty of Dental Surgery, San Jose, Costa Rica, Central America.

Papers presented:

American Diplomas Abroad.

Etiology and Prevention of Tuberculosis from the Sociological Standpoint.

Mechanical Appliances in the Treatment of Pyorrhea.

GALLOWAY, B. T., Dean, College of Agriculture, Cornell University, Ithaca, N. Y.

Paper presented: *The Relation of Government to the Marketing Problem.*

GALLOWAY, LEE, Alexander Hamilton Institute, New York, N. Y.

Paper presented: *Special Courses for Commercial Study, National Association of Corporation Schools.*

GÁLVEZ, JOSÉ MARÍA, Professor, University of Chile, Santiago, Chile, South America.

Official Delegate of Chile.

Delegate—

Pedagogical Institute of Santiago.
University of Chile.
National Education Association.
National League for the Prevention of Alcoholism.

Honorary Member.

Paper presented: *A Contribution to Pan American Understanding.*

Address before Subsection 1 of Section IV.

GÁLVEZ PORTOCARRERO, PEDRO, Guatemala City, Guatemala, Central America.

Paper presented: *Natural Resources and the Commercial and Economic Resources of Guatemala.*

GAMA, His Excellency DOMICIO DA, Brazilian Ambassador to the United States, 1780 Massachusetts Avenue, Washington, D. C.

Chairman of the Official Delegation of Brazil.

Delegate—

Institute of Geography and Archeology of Pernambuco.
Academy of Sciences, Arts, and Letters.
Academy of Letters of Brazil.

GÁMEZ, J. ALBERTO, Bluefields, Nicaragua, Central America.

Honorary Member.

Paper presented: *Intermediate Instruction.*

GAMIO, MANUEL, Museo Nacional, Mexico, D. F.
Chairman of the Official Delegation of Mexico.
Papers presented:
The Teotihuacana Culture.
The Last Cultural Period of The Aztec Type.
The Archaeological Chart.
Charts of Cultural Zones.

GANNETT, FARLEY, 31 South Front Street, Harrisburg, Pa.
Delegate—Society of Engineers of Pennsylvania.

GARAY, NARCISO, Director of National Conservatory of Music and Declamation, Panama City, Panama.
Panama Official Delegate.
Delegate—Conservatory of Music and Declamation.
Honorary Member.
Papers presented:
The State and Music in the Americas.
On the Road Toward the Pan American University.

GARCÍA APARICIO, CORONEL BENJAMÍN, Director Geographical Institute of the Staff of the Argentine Army, Buenos Aires, Argentina, South America.
Official Delegate of Argentina.
Delegate—Argentine Geographical Institute.
National Center of Engineers.
Paper presented: *Geodetical Works in Argentina.*

GARCÍA DROUET, CARLOS, Quito, Ecuador, South America.
Member Cooperating Committee, Ecuador.

GARCÍA KOHLY His Excellency JUAN DE DIOS, La Habana, Cuba.
Official Delegate of Cuba.
Honorary Member.
Member Cooperating Committee, Cuba.
Paper presented: *How Can the People of the American Countries best be Impressed with the Duties and Responsibilities of The State in International Law?*

GARCÍA DE ZÚÑIGA, EDUARDO, Professor, Faculty of Mathematics, Montevideo, Uruguay, South America.
Vice President Cooperating Committee, Uruguay.
Paper presented: *Aerial Transporters or Conveyors in Warehouses and at Port Terminals.*

GARDNER, H. A., Institute of Industrial Research, Washington, D. C.
Paper presented: *Drying Oils Produced in the Americas.*

GARDNER, HENRY B., Professor, Brown University, Providence, R. I.
Delegate—Brown University.

GARNER, JAMES W., Professor, University of Illinois, Urbana, Ill.
Paper presented: *The Study of International Law in American Countries and the Means by Which it May be Made More Effective.*

GATEWOOD, J. D., Medical Director, Naval Medical School, Washington, D. C.
Delegate—Naval Medical School.
Paper presented: *Artificial Illumination.*

GAY, C. W., Professor, University of Pennsylvania, Philadelphia, Pa.
Paper presented: *The Horse in Rural Industry and Recreation.*

GAY, EDWIN F., Dean, Graduate School of Business Administration, Harvard University, Cambridge, Mass.
Delegate—Harvard University.
Member of Committee, Subsection 2, Section IX.
Papers presented:
Preparation for Trade, Domestic and Foreign—From the Standpoint of the Educator.
Harvard Graduate School of Business Administration.

GAYLORD, H. R., Director, Gratwick Laboratory Research Hospital, Buffalo, N. Y.
Papers presented:
(*a*) *Cancer Problems in Special Biological Groups.*
(*b*) *Fish Tumors.*

GEISER, KARL F., Professor, Oberlin College, Oberlin, Ohio.
Delegate—Oberlin College.

GENST, HENRI DE, La Paz, Bolivia, South America.
Paper presented: *Physical Education in Bolivia.*

GEPHART, W. F., Washington University, St. Louis, Mo.
Paper presented: *Entrance Requirements to Colleges of Commerce.*

GIACOBINI, GENARO, Buenos Aires, Argentine, South America. Eight papers presented.

GIBBS, A. W., Chief Mechanical Engineer Pennsylvania Railroad, Philadelphia, Pa.
Delegate—American Society for Testing Materials.

GIBERGA, OCTAVIO, Justice of the Supreme Court of Habana, Calle Ánimas 88, Habana, Cuba.
Delegate—Cuban Society of International Law.

GIESECKE, ALBERTO, Rector University of Cuzco, Cuzco, Peru, South America.
Delegate—University of Cuzco.

GIL, ENRIQUE, 55 Wall Street, New York, N. Y.
Delegate—Faculty of Law, National University of Buenos Aires, Argentina.
Paper presented: *Pan Americanism in the Light of the Traditional Policy of Argentina.*

GIL, MARIO, Consul General of Uruguay, 17 Battery Place, New York, N. Y.
Delegate—
University of Montevideo.
Atheneum of Montevideo.
Division of Public Instruction.

GILBRETH, FRANK B., 77 Brown Street, Providence, R. I.
Paper presented: *Cronocyclegraph Motion Devices for Measuring Achievement.*

GILLILAND, S. H., Marietta, Pa.
Delegate—United States Live Stock Sanitary Association.

GIPPRICH, JOHN L., Georgetown University, Washington, D. C.
Delegate—St. Louis University.

GLENN, JOHN M., 130 East Twenty-second Street, New York, N. Y.
Delegate—Russell Sage Foundation.

GLOVER, JAMES, Professor, University of Michigan, Ann Arbor, Mich.
Delegate—University of Michigan.

GODDARD, HENRY H., Director of Psychological Research Training School, Vineland, N. J.
Paper presented: *The Defective Child and the Prevention of Feeble-mindedness.*

GODDARD, PLINY EARLE, Curator, American Museum of Natural History, New York, N. Y.
Delegate—American Ethnological Society.
Member of Committee, Subsection 1, Section I.

GODFREY, HOLLIS, President, Drexel Institute, Philadelphia, Pa.
Delegate—Society for Promotion of Engineering Education.
Drexel Institute.

GODINHO, VÍCTOR, Sao Paulo, Brazil, South America.
Paper presented: *Climatology of the Sanatorio of Jordan, Sao Paulo, Brazil.*

GOETZ, FREDERICK A., Dean, Columbia University School of Mines, New York, N. Y.
Member of Committee, Subsection 6, Section IV.
Alternate—Society for Promotion of Engineering Education.

GOLDBERGER, JOSEPH, United States Public Health Service, Washington, D. C.
Paper presented: *A Résumé of Some of the Recent Studies of the United States Public Health Service Relating to the Causation and to a Method of Preventing Pellagra.*

GOLDSMITH, PETER H., American Association for International Conciliation, 407 West One Hundred and Seventeenth Street, New York, N. Y.
Delegate—Pan American Division of American Association for International Conciliation.
Paper presented: *The Future of Pan Americanism.*

GONZALES, VINCENT, 30 Church Street, New York, N. Y.
Delegate—National Association of Manufacturers.

GONZÁLEZ, JUSTO, Superintendent, Hospital-Laboratory "Vilardebó," Montevideo, Uruguay, South America.
Official Delegate of Uruguay.
Paper presented: *Prophylaxis of Typhoid Fever by Means of Vaccination.*

GONZÁLEZ RINCONES, RAFAEL, Professor, Faculty of Medicine of Caracas, Venezuela.
Official Delegate of Venezuela.
Papers presented:
Tropical Parasitosis.
Biting Insects of Venezuela.
Ascanio's Method of Staining Parasites.
Trypanosomes of Venezuela.
The Study of Tropical Diseases in America.

GOODALE, LEVI C., 301 Union Trust Building, Cincinnati, Ohio.
Alternate—Cincinnati Chamber of Commerce.

GOODE, J. PAUL, Professor, University of Chicago, Chicago, Ill.
Member of Committee, Subsection 10, Section IV.

GOODELL, JOHN M., Montclair, N. J.
Delegate—American Society of Municipal Improvements.

GOODMANSON, F. A., 1020 Mozart Street, Chicago, Ill.
Delegate—Institute of Engineers of River Plate.

GOODNOW, FRANK J., President, Johns Hopkins University, Baltimore, Md.
Delegate—Johns Hopkins University.

GOODWIN, ELIOT H., Secretary United States Chamber of Commerce, Washington, D. C.
Delegate—United States Chamber of Commerce.
Paper presented: *Is There a Profession of Business and Can We Really Train for It?*

GORDON, C. H., University of Tennessee, Knoxville, Tenn.
Delegate—Southern Geographical Society.

GORDON, GEORGE B., Director University Museum, Philadelphia, Pa.
Delegate—University Museum of Philadelphia.
Paper presented: *The Amazon Expedition of the University Museum of Philadelphia.*
Member of Committee, Subsection 2, Section I.

GORGAS, W. C., Surgeon General United States Army, Washington, D. C.
Official Delegate of the United States.
Member of Executive Committee.
Chairman of Section VIII.
Delegate—
Faculty of Medicine of Porto Alegre, Brazil.
Council of Medical Education.

GORHAM, FREDERIC P., Professor, Brown University, Providence, R. I.
Delegate—Brown University.

GORRITI, FERNANDO, Physician of the National Colony for the Insane, Buenos Aires, Argentina, South America.
Paper presented: *Mental Autophrasia.*

GOTTLIEB, FREDERICK H., Merchants and Manufacturers' Association of Baltimore, Baltimore, Md.
Delegate—Merchants and Manufacturers' Association of Baltimore.

GOURDY, AUGUSTO CELESTINO, Chief of Clinical Practice at the Central, Clinical Laboratory, Buenos Aires, Argentina, South America.
Paper presented: *Lymphocytosis in Syphilitics.*

GOYBURU, RICARDO, Callao, Peru, South America.
Delegate—Bar Association of Peru.

GRAHAM, EDWARD K., President University of North Carolina, Chapel Hill, N. C.
Delegate—University of North Carolina.
Paper presented: *Extra-Mural Services of State and Endowed Universities, Including University Extension, from the Humanistic Standpoint.*

GRAHAM, SAMUEL J., Assistant Attorney General, Department of Justice, Washington, D. C.
Delegate—Department of Justice.
Honorary Member.

GRAÑA, FRANCISCO, Calle Belaochaga, 577, Lima, Peru, South America.
Member Cooperating Committee, Peru.

GRAVES, HENRY S., Chief of Forest Service, Department of Agriculture, Washington, D. C.
Official Delegate of the United States.
Delegate—United States Forest Service.
Chairman of Subsection 2, Section III.
Paper presented: *A Forest Policy for a Nation.*

GRAY, ARTHUR W., American Institute of Metals, 106 Morris Avenue, Buffalo, N. Y.
Delegate—American Institute of Metals.

GRAY, Hon. GEORGE, Wilmington, Del.
Chairman of the United States Official Delegation.

GREGORY, CHARLES NOBLE, 2139 Wyoming Avenue,Washington, D. C.
Chairman of Subsection 1, Section VI.
Member of Committee, Subsection 2, Section VI.

GRIEVES, CLARENCE J., 201 West Madison Street, Baltimore, Md.
Delegate—National Dental Association.

GRIFFIN, WILLIAM V., Pan American Union, Washington, D. C.
Delegate—Pan American Union.

GRIFFITHS, DAVID, Bureau of Plant Industry, Department of Agriculture, Washington, D. C.
Alternate—South Dakota State College of Agriculture and Mechanic Arts.

GRINFELD, ISAAC, Director International School, Avenida de Mayo, 1396, Buenos Aires, Argentina, South America.
Paper presented: *Modern Business and the New Orientation of Commercial Education.*

GROSVENOR, GILBERT H., National Geographic Society, Washington, D. C.
Delegate—National Geographic Society.
Alternate—American Association to Promote the Teaching of Speech to the Deaf.

GROTH, B. H. A., Panama City, Panama.
Paper presented: *What Preparations Should be Required for Admission to State and National Colleges of Agriculture? To What Extent Should the Courses of Study in the Agricultural College be Theoretical and General, and to What Extent Practical and Specific? To What Extent Should the Curriculum of any Such College be Determined by Local Conditions?*

GROVER, N. C., Geographical Survey, Washington, D. C.
Chairman of Subsection 3, Section III.

GRUNSKY, C. E., San Francisco, Cal.
Paper presented: *State Aid to Irrigation and Swamp Land Reclamation Projects.*

GUARDIA, TOMÁS, Panama City, Panama.
Member Cooperating Committee, Panama.

GUERRA, ARTURO L., Physician on Staff of Washington Diet Kitchen Association, The Albemarle, Washington, D. C.
Paper presented: *Modern Methods for the Prevention of Infantile Mortality.*

GUGGIARI, PEDRO J. BRUNO, Professor, University of Paraguay, Asuncion, Paraguay, South America.
Official Delegate of Paraguay.
Papers presented:
The Determination of Active Oxygen in Washing Perborates.
A Contribution to the Study of Coloring Lakes.

GUILFOY, WILLIAM H., Registrar of Records, New York, N. Y.
Paper presented: *Vital Statistics with Special Reference to New York City.*

GUIMARAES, ARTURO, Rio de Janeiro, Brazil, South America.
Paper presented: *Foreign Trade Between the Countries of the American Continent.*

GUIROLA DUKE, RAFAEL, Santa Tecla, El Salvador, Central America.
Honorary Member.
Paper presented: *Commerce Between the United States and Central America.*

GUITERAS, JUAN, Director of Health of Cuba, Habana, Cuba.
Official Delegate of Cuba.
Delegate Academy of Medical, Physical, and Natural Sciences of Habana.
Member Cooperating Committee, Cuba.
Paper presented: *Problems of Insect-Borne Diseases in Pan America.*

GUITERAS, RAMÓN, 80 Madison Avenue, New York, N. Y.
Delegate—New York Academy of Medicine.

GUNDRUM, FRED F., Bureau of Administration, Sacramento, Cal.
Alternate—California State Board of Health.

GUNDRY, R., Catonsville, Md.
Alternate—American Medical Society for Study of Alcohol and Narcotics.

GUTIÉRREZ, J. CAMILO, Managua, Nicaragua, Central America.
President Cooperating Committee, Nicaragua.

GUTIÉRREZ-LANZA, Rev. MARIANO, S. J., Assistant Director, Observatory of Belen College, Habana, Cuba.
Official Delegate of Cuba.
Delegate—Observatory of Belen College.
Paper presented: *The Climate of Cuba.*

HAAS, FRANK, Fairmont Coal Company, Fairmont, W. Va.
Paper presented: *The Saving of Coal Through the Employment of Better Mining Methods.*

HAGENAH, W. J., First National Bank Building, Chicago, Ill.
Paper presented: *The Valuation of Water Power.*

HAIG, ROBERT M., Columbia University, New York, N. Y.
Paper presented: *The American System of Special Assessments and Its Applicability in Other Countries.*

HAINES, C. G., University of Texas, Austin, Tex.
Delegate—University of Texas.

HALL, LOUIS D., Office of Markets and Rural Organization, Agricultural Department, Washington, D. C.
Paper presented: *Great Central Markets for Live Stock and Meats.*

HALL, MAURICE C., 1815 Hamlin Street, Langdon, D. C.
Delegate—Colorado College.

HALL, R. D., New York, N. Y.
Paper presented: *Valuation of Federal Coal Lands.*

HALSTEAD, F. M., United States Treasury, Washington, D. C.
Paper presented: *Is it Desirable and Possible to Establish Uniform Rates, Methods, and Classifications between the North Central, and South American Countries?*

HAM, W. F., Vice President, Washington Railway and Electrical Company, Washington, D. C.
Alternate—American Electric Railway Association.

HAMERSCHLAG, ARTHUR A., Director, Carnegie Institute of Technology, Pittsburgh, Pa.
Delegate—Carnegie Institute of Technology.
Chairman of Subsection 6, Section IV.
Paper presented: *To What Extent May College Courses in Engineering Be Profitably Supplemented by Practical Work in the Shop? To What Extent May Laboratory Work in Engineering Be Replaced through Cooperation with Industrial Plants?*

HAMILTON, JAMES M., President, Montana State College of Agricultural and Mechanical Arts, Bozeman, Mont.
Delegate—Montana State College of Agricultural and Mechanical Arts.

HAMLIN, C. S., Governor Federal Reserve Board, Treasury Department, Washington, D. C.
Delegate—Federal Reserve Board.

HAND, W. F., Mississippi Agricultural and Mechanical College, Agricultural College, Miss.
Delegate—Mississippi Agricultural amd Mechanical College.

HANEY, LEWIS H., University of Texas, Austin, Tex.
Alternate—University of Texas.

HARD, HERBERT A., University of North Dakota, Fargo, N. Dak.
Delegate—University of North Dakota.

HARDING, H. McL., 52 Vanderbilt Avenue, New York, N. Y.
Paper presented: *Harbor and Port Terminal Facilities and Works.*

HARDING, S. T., University of California, Berkeley, Cal.
Paper presented: *Adaptation of Methods of Applying Water to Soils.*

HARLAN, JAMES S., Interstate Commerce Commission, Washington, D. C.
Chairman of Subsection 1, Section IX.

HARRIMAN, EDWARD A., New Haven, Conn.
Paper presented: *What Means Should Be Provided and Procedure Adopted for Authoritatively Determining whether The Hague Convention, or other General International Agreements, or the Rules of International Law Have Been Violated? In Case of Violations, What Should be the Nature of the Remedy and How Should It Be Enforced?*

HARRIS, A. W., President, Northwestern University, Evanston, Chicago, Ill.
Delegate—Northwestern University.

HARRIS, JOHN H., President, Bucknell University, Lewisburg, Pa.
Delegate—Bucknell University.

HARRIS, NORMAN DWIGHT, Professor, Northwestern University, Chicago, Ill.
Paper presented: *The Duties and Obligations of Neutral Governments, Parties to the Hague Conventions, in Case of Actual or Threatened Violations by Belligerents of the Stipulations of the Said Conventions.*

HARRIS, WILLIAM J., 1808 Massachusetts Avenue, Washington, D. C.
Delegate—Federal Trade Commission.

HARRISON, FAIRFAX, President, Southern Railway, Washington, D. C.
Delegate—American Railway Association.

HARRISON, LELAND, Division of Latin-American Affairs, State Department, Washington, D. C.
Delegate—Division of Latin-American Affairs.

HART, EDWARD, Dean, Pardee Scientific Department, Lafayette College, Easton, Pa.
Delegate—Lafayette College.

HARTS, WILLIAM W., 1729 New York Avenue, Washington, D. C.
Delegate—American Society of Civil Engineers.
Member of Committee, Section V.
Papers presented:
Engineering and other Scientific Work of the Office of Public Buildings and Grounds.
Work of the United States Office of Public Buildings and Grounds.

HARVEY, L. D., President, Stout Institute, Menominee, Wis.
Paper presented: *Education in Trades and Industries.*

HASKELL, HENRY S., American Association for International Conciliation, 407 West One hundred and seventeenth Street, New York, N. Y.
Delegate—Pan American Division of American Association for International Conciliation.

HAY, W. P., Business High School, Washington, D. C.
Delegate—Bulter College.

HAYFORD, JOHN F., Northwestern University, Evanston, Ill.
Delegate—Western Society of Engineers.

HAYHURST, E. R., Ohio State Board of Health, Columbus, Ohio.
Paper presented: *Factory Sanitation.*

HAYWOOD, J. K., Bureau of Chemistry, Agricultural Department, Washington, D. C.
Delegate—Association of Feed Control.

HEALEY, HORACE G., 627 West One hundred fifty-second Street, New York City.
Paper presented: *The Proper Use of Business Experts From the Business World in Class Instruction on Domestic and Foreign Commerce.*

HEALY, WILLIAM, Director of the Psychopathic Institute, Chicago, Ill.
Paper presented: *Juvenile Delinquency.*

HEBARD, MORGAN, American Entomological Society, Logan Square, Philadelphia, Pa.
Alternate—American Entomological Society.

HECKEL, ALBERT K., Assistant Dean, Lafayette College, Easton, Pa.
Alternate—Lafayette College.

HEDERICK, FRANZ, Professor, University of Bogota, Bogota, Colombia, South America.
Official Delegate of Colombia.
Delegate—Secretary to the Official Delegation of Colombia.

HEDGES, C. C., Professor, Agricultural and Mechanical College of Texas, College Station, Tex.
Delegate—Agricultural and Mechanical College of Texas.

HEISER, VICTOR G., International Health Commission, 61 Broadway, New York, N. Y.
Delegate—International Health Commission.

HENDERSCHOTT, F. C., National Association of Corporation Schools, New York, N. Y.
Paper presented: *Corporation Schools.*

HENDERSON, L. L., University of Georgia, Athens, Ga.
Alternate—University of Georgia.

HENDERSON, R., 32 Nassau Street, New York City.
Delegate—Actuarial Society of America.

HENNING, GEORGE N., Professor, George Washington University, Washington, D. C.
Delegate—Modern Language Association of America.

HENNY, D. C., Reclamation Service, Interior Department, Washington, D. C.
Delegate—Oregon Society of Engineers.

HENRY, A. J., United States Weather Bureau, Washington, D. C.
Paper presented: *River Service of the Weather Bureau.*

HERAUX, EDMOND, Port au Prince, Haiti.
Delegate—Haitian Society of International Law.
Honorary Member.

HERING, CARL, 929 Chestnut Street, Philadelphia, Pa.
Delegate—American Electrochemical Society.

HERING, RUDOLPH, Consulting Engineer, 170 Broadway, New York, N. Y.
Delegate—American Society of Municipal Improvements.
Paper presented: *Final Disposition of City Sewage.*

HERMITTE, ENRIQUE, Director, Department of Mines, Buenos Aires, Argentina, South America.
Papers presented:
Extent, Mode of Occurrence, and Probable Yield of the Petroleum Fields of Argentina.
Extent and Possible Development of the Borax Deposits of Argentina.

HERNÁNDEZ Y HERNÁNDEZ, SERAPIO, Tegucigalpa, Honduras, Central America.
Paper presented: *Principles that Should Govern the Relations Between Federal, State, and Local Revenues.*

HERRICK, CHEESMAN A., 140 West Forty-second Street, New York, N. Y.
Delegate—National Society for the Promotion of Industrial Education.

HERRMANN C. F., VON, Atlanta, Ga.
Paper presented: *The Position of Meteorology Among the Sciences.*

HERSHEY, AMOS S., 706 North College Avenue, Bloomington, Ind.
Member of Committee, Subsection 1, Section VI.

HERTY, C. H., American Chemical Society, Chapel Hill, N. C.
Delegate—American Chemical Society.
Member of Committee, Subsection 4, Section VII.
Paper presented: *Chemical Research as a Directing Aid in the Efficient Utilization of Pine Forests.*

HESS, ALFRED F., 16 West Eighty-sixth Street, New York, N. Y.
Paper presented: *Infantile Scurvy.*

HESS, GEORGE W., United States Botanic Gardens, Washington, D. C.
Delegate—United States Botanic Gardens.

HESS, RALPH HENRY, Professor, University of Wisconsin, Madison, Wis.
Delegate—University of Wisconsin.
Paper presented: *Conservation in its Relation to Industrial Evolution.*

HESSE, B. C., Chemist, 90 William Street, New York, N. Y.
Member of Committee, Subsection 4, Section VII.

HEWETT, EDGAR L., Museum of New Mexico, Santa Fe, N. Mex.
Delegate—School of American Archæology.
Member of Committee, Subsection 2, Section I.

HIBBEN, JOHN GRIER, President, Princeton University, Princeton, N. J.
Member of Committee, Subsection 3, Section IV.

HICKEN, CRISTÓBAL, Professor, University of Buenos Aires, Calle Corrientes 1886, Buenos Aires, Argentina, South America.
Official Delegate of Argentina.
Delegate—
Natural History Museum of Buenos Aires.
Natural History Museum of La Plata.
Argentine Scientific Society.
National Engineering Society of Buenos Aires.
Papers presented:
Results of the First Year's Work of the National Commission of the Argentine Flora.
Contribution to the Botany of the Forest Region of Southern Patagonia.

HICKS, FREDERICK CHARLES, Professor, University of Cincinnati, Cincinnati, Ohio.
Delegate—University of Cincinnati.
Member of Committee, Subsection 10, Section IV.
Paper presented: *University of Cincinnati—Continuation and Evening Courses.*

HIGLEY, GEORGE OSWIN, Ohio Wesleyan University, Delaware, Ohio.
Delegate—Ohio Wesleyan University.

HILL, A. ROSS, President, University of Missouri, Columbia, Mo.
Delegate—University of Missouri.

HILL, DAVID JAYNE, 1745 Rhode Island Avenue, Washington, D. C.
Member of Committee, Subsection 1, Section VI.
Paper presented: *How Can the People of the American Countries Best be Impressed with the Duties and Responsibilities of the State in International Law?*
Honorary Member.

HILL, JOSEPH A., Bureau of the Census, Department of Commerce, Washington, D. C.
Delegate—Bureau of the Census of the Department of Commerce.

HILL, NICHOLAS S., Jr., 100 William Street, New York, N. Y.
Delegate—American Water Works Association.

HILL, ROSCOE R., Professor, University of New Mexico, Albuquerque, N. Mex.
Alternate—University of New Mexico.

HILLEBRAND, W. F., United States Bureau of Standards, Department of Commerce, Washington, D. C.
Alternate—Bureau of Standards, Department of Commerce.
Member of Committee, Subsection 4, Section VII.
Paper presented: *Uniform Methods of Analysis.*

HILLER, FRANCIS L. L., 457 Park Road, Washington, D. C.
Alternate—University of Denver.

HILLER, N. H., Carbondale Machine Company, Carbondale, Pa.
Delegate—American Society of Refrigerating Engineers.

HILLS, E. C., Professor, Colorado College, Colorado Springs, Colo.
Delegate—Colorado College.

HINSDALE, GUY, Kennebunkport, Me.
Alternate—American Climatological and Clinical Association.

HITCHENS, A. PARKER, Glenolden, Pa.
Alternate—American Association of Immunologists.
Paper presented: *Hay Fever and Certain Other Local Anaphylactic Phenomena Referable to the Respiratory Mucous Membranes.*

HOBBS, WILLIAM H., Professor, University of Michigan, Ann Arbor, Mich.
Delegate—University of Michigan.
Paper presented: *The Ferrel Doctrine of Polar Calms and Its Disproof in Recent Observations.*

HODGE, E. R., Surgeon General's Office, War Department, Washington D. C.
Alternate—Army Medical Museum.

HODGE, F. W., Smithsonian Institution, Washington, D. C.
Delegate—Bureau of American Ethnology.
Chairman of Subsection 1, Section I.
Papers presented:
What the United States Government Has Done for Anthropology.
The Origin and Destruction of a National Indian Portrait Gallery.

HOFF, Col. JOHN VAN R., 2112 Massachusetts Avenue, Washington, D. C.
Vice Chairman of Section VIII.

HOFFMAN, EUGENE B., Reclamation Service, Interior Department, Washington, D. C.
Delegate—Bureau of American Ethnology.
Alternate—United States Reclamation Service.

HOFFMAN, FREDERICK L., Prudential Insurance Company, Newark, N. J.
Paper presented: *Mortality from Cancer in the Western Hemisphere.*

HOGAN, JOHN L., Institute of Radio Engineers, 111 Broadway, New York, N. Y.
Alternate—Institute of Radio Engineers.

HOGAN, JOHN N., National Electric Signalling Company, Brooklyn, N. Y.
Paper presented: *Physical Aspects of Radiotelegraphy.*

HOKE, GEORGE W., Professor, Miami University, Oxford, Ohio.
Paper presented: *What Can the Small College Do in Training for Business.*

HOLCOMB, RICHMOND C., Navy Department, Washington, D. C.
Delegate—Bureau of Medicine and Surgery, Navy Department.

HOLDEN, R. J., Professor, Virginia Polytechnic Institute, Blacksburg, Va.
Delegate—Virginia Polytechnic Institute.

HOLDSWORTH, J. T., University of Pittsburgh, Pittsburgh, Pa.
Delegate—University of Pittsburgh.

HOLLAND, W. J., Carnegie Museum, Pittsburgh, Pa.
Delegate—Carnegie Museum.
Alternate—American Association of Economic Entomologists.

HOLLANDER, JACOB H., Professor, Johns Hopkins University, Baltimore, Md.
Chairman of Subsection 3, Section IX.
Paper presented: *Economic Theorizing and Scientific Progress.*

HOLLEY, FRANCIS, Director Bureau of Commercial Economics, Washington, D. C.
Delegate—Bureau of Commercial Economics.
Paper presented: *Special Courses for Commercial Study—Bureau of Commercial Economics.*

HOLLIS, IRA N., Worcester, Mass.
Delegate—Worcester Polytechnic Institute.

HOLLISTER, SCOVILLE, Compañía Estanífera, Llallagua, Bolivia, South America.
Paper presented: *Metallurgical Practices at the Tin Mines of Bolivia.*

HOLMES, GEORGE K., Bureau of Crop Estimates, Department of Agriculture, Washington, D. C.
Delegate—Department of Agriculture.

HOLMES, WILLIAM H., Smithsonian Institution, Washington, D. C.
Official Delegate of the United States.
Delegate—
Archæological Institute of America.
School of American Archæology.
Member of Executive Committee.
Chairman of Section I.
Paper presented: *The Place of Archæology in Human History.*

HOLT, EDWARD B., Professor, Harvard University, Cambridge, Mass.
Delegate—American Psychological Association.

HOOD, OZNI P., Bureau of Mines, Interior Department, Braddock and Waverly streets, Pittsburgh, Pa.
Alternate—Bureau of Mines.

HOOGEWERFF, JOHN A., Navy Department, Washington, D. C.
Delegate—Naval Observatory.

HOOKER, DONALD R., Upland, Roland Park, Md.
Delegate—American Social Hygiene Association.

HOOPER, S. C., Navy Department, Washington, D. C.
Delegate—Bureau of Steam Engineering.

HORACK, FRANK EDWARD, Professor, State University of Iowa, Iowa City, Iowa.
Delegate—State University of Iowa.

HORNADAY, F. A., George Washington University, Washington, D. C.
Member of Committee Subsection 7, Section IV.

HORNER, HARLAN H., Chief, Division of Examinations, Department of Education, Albany, N. Y.
Paper presented: *Who is a Medical Practitioner?*

HOUGH, B. OLNEY, Editor, American Exporter, 17 Battery Place, New York, N. Y.
Paper presented: *The Proper Use of Business Experts from the Business World in Class Instruction in Domestic and Foreign Commerce* (*Symposium*).

HOUGH, WALTER, National Museum, Washington, D. C.
Member of Committee, Subsection 1, Section I.
Paper presented: *Ceremonial and Other Practices on the Human Body Among the Indians.*

HOUGHTON, E. M., Chemist, 130 Longfellow Avenue, Detroit, Mich.
Delegate—Detroit Board of Commerce.

HOWARD, Rev. FRANCIS W., 1651 East Main Street, Columbus, Ohio.
Delegate—Catholic Educational Association.

HOWARD, GEORGE ELLIOTT, Professor, University of Nebraska, Lincoln, Nebr.
Delegate—University of Nebraska.

HOWARD, L. O., Smithsonian Institution, Washington, D. C.
Alternate—American Association for the Advancement of Science.
Member of Committee, Subsection 6, Section III.
Paper presented: *The Great Need for the Establishment of a Competent Bureau for the Study of Injurious Insects in All American Countries.*

HOWE, CHARLES S., President, Case School of Applied Science, Cleveland, Ohio.
Delegate—Case School of Applied Science.
Paper presented: *Engineering Education in the United States.*

HOWE, HENRY M., International Association for Testing Materials, Broad Brook Road, Bedford, Hills, N. Y.
Delegate—International Association for Testing Materials.

HOWE, SAMUEL T., Tax Commissioner, Topeka, Kans.
Member of Committee, Subsection 4, Section IX.

HOYT, JOHN C., Washington Society of Engineers, Washington, D. C.
Alternate—Washington Society of Engineers.

HRDLIČKA, ALEŠ, Curator, Division Physical Anthropology, United States National Museum, Washington, D. C.
Secretary, Section I.
Member of Committee, Subsection 3, Section I.
Papers presented:
The Genesis of the American Indian.
Anthropological Study of Old Americans (American Whites of Three or More Generations on Each Side.)

HUDSON, CLAUDE S., Box 3274, Station F, Washington, D. C.
Alternate—Association Official Agricultural Chemists.

HUFF, WILLIAM BASHFORD, Professor, Bryn Mawr College, Bryn Mawr, Pa.
Delegate—Bryn Mawr College.

HUFF, WILLIAM K., 730 Witherspoon Building, Philadelphia, Pa.
Delegate—American Society for Extension of University Teaching.

HUGHES, R. M., President, Miami University, Oxford, Ohio.
Delegate—Miami University.
Member of Committee, Subsection 6, Section IV.

HULETT, G. A., United States Bureau of Mines, Interior Department, Washington, D. C.
Delegate—Bureau of Mines.

HULL, WILLIAM I., Professor, Swarthmore College, Swarthmore, Pa.
Delegate—Swarthmore College.

HUMPHREYS, W. J., Weather Bureau, Washington, D. C.
Papers presented:
The Collection of Seismological Data in the United States.
Wind Velocity and Elevation.

HUNT, CHARLES WARREN, 220 West Fifty-seventh Street, New York, N. Y.
Secretary, Subsection on Civil Engineering, Section V.

HUNT, ROBERT W., 2200 Insurance Exchange, Chicago, Ill.
Delegate—International Association for Testing Materials.

HURTADO, PABLO, Managua, Nicaragua, Central America.
Vice President Cooperating Committee, Nicaragua.

HURTY, JOHN N., State Board of Health, Indianapolis, Ind.
Delegate—Conference of State and Provincial Boards of Health of North America.
Indiana State Board of Health.
Paper presented: *Town and City Planning.*

HUSSEY, WILLIAM J., Director, Astronomical Observatory, University of Michigan, Ann Arbor, Mich.
Delegate—University of Michigan.
Paper presented: *Work of Observatory at La Plata, Argentina.*

HUTCHESON, W. A., 34 Nassau Street, New York, N. Y.
Alternate—Actuarial Society of America.

HUTCHINS, HARRY B., President, University of Michigan, Ann Arbor, Mich.
Delegate—University of Michigan.
Member of Committee, Subsection 3, Section IV.

HUTCHISON, F. L., 33 West Thirty-ninth Street, New York, N. Y.
Secretary, Subsection on Electrical Engineering, Section V.

HYDE, CHARLES CHENEY, 112 West Adams Street, Chicago, Ill.
Alternate—Northwestern University.
Member of Committee, Subsection 1, Section VI.

IDIARTEGARAY, A., Montevideo, Uruguay, South America.
Paper presented: *Customs Regulations in Uruguay.*

INGALLS, W. R., Editor of Engineering and Mining Journal, Tenth Avenue and Thirty-sixth Street, New York, N. Y.
Delegate—Mining and Metallurgical Society of America.
Chairman of Subsection 2, Section VII.
Paper presented: *The Prospect for Marketing South American Zinc Ores.*

INGENIEROS, JOSÉ, Professor, Viamonte 763, Buenos Aires, Argentina, South America.
Honorary Member.
Papers presented:
Races and Nationalities in America.
A New Organization of Universities According to Scientific Philosophy.

INSTITUTO CENTRAL METEOROLÓGICO Y GEOFÍSICO DE CHILE.
Paper presented: *Résumé of the Organization of the Meteorological Service of Chile.*

IRALA, ANTONÍN, Professor, University of Paraguay, Asunción, Paraguay, South America.
Delegate: Paraguayan Society of International Law
Honorary Member.
Paper presented: *Mission of the American Institute of International Law.*

JACKSON, DUGALD C., Massachusetts Institute of Technology, Boston, Mass.
Delegate—American Institute of Consulting Engineers.
Paper presented: *Electrical Engineering.*

JACOBS, EMILIO, La Paz, Bolivia, South America.
Paper presented: *To What Extent is Coeducation Desirable in Elementary Schools, High Schools, Colleges, and Universities.*

JACOBY, H. S., Cornell University, Ithaca, N. Y.
Paper presented: *Long-Span Bridges.*

JAMES, ALTON JAMES, Northwestern University, Evanston, Ill.
Delegate—Northwestern University.

JAMES, EDMUND J., President, University of Illinois, Urbana, Ill.
Delegate—
American Academy of Political and Social Science.
Chairman of Subsection 3, Section IV.
Remarks before Joint Session of Section IV and Section IX.

JAMES, FRANCIS B., Westory Building, Washington, D. C.
Delegate—Cincinnati Chamber of Commerce.

JAMES, HERMAN G., Professor, University of Texas, Austin, Tex.
Paper presented: *Extra-Mural Services of State and Endowed Universities, including University Extension, from the Governmental Standpoint.*

JANIN, CHARLES, Mining Engineer, Bureau of Mines, San Francisco, Cal.
Paper presented: *Placer Mining Methods and Operating Costs.*

JANNEY, WILLIAM D., 203 State Bank Building, Baltimore, Md.
Delegate—Engineers' Club of Baltimore.

JARDINE, WILLIAM, Manhattan, Kans.
Alternate—Kansas State Agricultural College.

JAYNE, HENRY LA BARRE, 730 Witherspoon Building, Philadelphia, Pa.
Alternate—American Society for Extension of University Teaching.

JENKS, ALBERT E., Professor, University of Minnesota, Minneapolis, Minn.
Member of Committee, Subsection 1, Section I.

JENKS, JEREMIAH W., Professor, New York University, Washington Square, New York, N. Y.
Delegate—New York University.
Member of Committee, Subsection 2, Section IX.
Member of Committee, Subsection 10, Section IV.
Papers presented:
The Balance of Trade Between South America and the United States.
New York University—Two-Year Course and Individualization of Training for Business.

JENNINGS, HENNEN, Mining Engineer, Washington, D. C.
Official Delegate of the United States.
Member of Executive Committee.
Chairman of Section VII.
Paper presented: *History and Development of Gold Dredging in Montana.*

JENNINGS, H. S., Professor, Johns Hopkins University, Baltimore, Md.
Delegate—American Society of Naturalists.
Paper presented: *Origin of Diverse Races in Difflugia Corona.*

JEREZ, VÍCTOR, Professor of the School of Jurisprudence and Social Sciences, San Salvador, El Salvador, Central America.
Member Cooperating Committee, El Salvador.

JEWETT, F. B., 463 West Street, New York, N. Y.
Paper presented: *Recent Telegraph and Telephone Development.*

JIMÉNEZ, GERMÁN, Caracas, Venezuela, South America.
Member Cooperating Committee, Venezuela.
Paper presented: *Sketch of the Mineral Resources of Venezuela.*

JIMÉNEZ DE ARÉCHAGA, JUSTINO E., Professor, Faculty of Law, Montevideo, Uruguay.
President Cooperating Committee, Uruguay.
Paper presented. *Government and Responsibility.*

JIMÉNEZ NÚÑEZ, JOSÉ, President of the Faculty of Dentistry, San José, Costa Rica, Central America.
Member Cooperating Committee, Costa Rica.

JODIDI, S. L., Organic Chemist, United States Department of Agriculture, Washington, D. C.
Papers presented:
A Simple, Efficient, and Economic Filter; Its Application to the Filtration of the Yellow Precipitate in Phosphoric-Acid Estimations.
The Application of the Paper Pulp Filter to the Quantitative Estimation of Calcium and Magnesium.

JOHNSON, ALBA B., President, Baldwin Locomotive Works, Philadelphia, Pa.
Honorary Member.
Delegate—Philadelphia Chamber of Commerce.
National Foreign Trade Council.

JOHNSON, EMORY R., Professor, University of Pennsylvania, Philadelphia, Pa.
Delegate—American Academy of Political and Social Sciences.
Member of Committee, Subsection 1, Section IX.
Paper presented: *Some Problems and Principles of Government Regulation of Railroads.*

JOHNSON, JOSEPH FRENCH, New York University, New York, N. Y.
Paper presented: *Special Courses for Commercial Study—Alexander Hamilton Institute.*

JOHNSON, LUCIUS E., Bureau of Railway Economics, Home Building, Thirteenth and F Streets NW., Washington, D. C.
Delegate—Bureau of Railway Economics.

JOHNSON, ROSWELL H., Professor, University of Pittsburgh, Pittsburgh, Pa.
Delegate—University of Pittsburgh.
Paper presented: *Legal and Economic Factors in the Conservation of Oil and Gas.*

JOHNSTON, ARCHIBALD, Vice President Bethlehem Steel Corporation, 120 Church Street, Bethlehem, Pa.
Delegate—Bethlehem Steel Corporation.

JOHNSTON, GEORGE BEN, Medical Society of Virginia, 200 East Franklin Street, Richmond, Va.
Delegate—Medical Society of Virginia.

JOHNSTON, JOHN R., Santiago de las Vegas, Cuba.
Delegate—Agricultural Experiment Station of Cuba.
Paper presented: *Cooperation between the Pan American Countries in the Matter of Plant Quarantine Service.*

JOHNSTONE, E. R., Superintendent Training School, Vineland, N. J.
Paper presented: *Education and Training of Defectives.*

JONES, C. R., Dean College of Engineering, West Virginia University, Morgantown, W. Va.
Delegate—West Virginia University.

JONES, E. LESTER, Superintendent Coast and Geodetic Survey, Washington, D. C.
Delegate—United States Coast and Geodetic Survey.
Member of Committee, Section V.
Paper presented: *Engineering and Other Scientific Work of the United States Coast and Geodetic Survey.*

JORDAN, EDWIN O., Professor, University of Chicago, Chicago, Ill.
Paper presented: *Water Supply.*

JUDSON, FREDERICK N., Rialto Building, St. Louis, Mo.
Paper presented: *Recent Law Reforms in the United States of America.*

KANDEL, I. L., Carnegie Foundation for the Advancement of Teaching, New York, N. Y.
Paper presented: *Commercial Education in England.*

KARAPETOFF, VLADIMIR, Professor, Cornell University, Ithaca, N. Y.
Paper presented: *What is Engineering Education Contributing Toward Scientific Progress and Invention?*

KAYEL, BERNARDO, Montevideo, Uruguay, South America.
Paper presented: *Radiotelegraphy in Uruguay.*

KEARNEY, T. H., Bureau of Plant Industry, United States Department of Agriculture, Washington, D. C.
Alternate—American Genetic Association.

KELLER, ARTHUR R., Professor, Massachusetts Institute of Technology, Boston, Mass.
Delegate—College of Hawaii.

KELLER, CHARLES, United States Engineers Office, Mobile, Ala.
Paper presented: *Shallow-draft Boat and Barge Transportation.*

KELLERMAN, K. F., Bureau of Plant Industry, United States Department of Agriculture, Washington, D. C.
Delegate—Bureau of Plant Industry.

KELLY, N. B., General Secretary Philadelphia Chamber of Commerce, Philadelphia, Pa.
Alternate—Philadelphia Chamber of Commerce.

KELSEY, CARL, Professor, University of Pennsylvania, Philadelphia, Pa.
Honorary Member.
Delegate—American Academy of Political and Social Science.

KEMMERER, EDWIN W., Professor, Princeton University, Princeton, N. J.
Member of Committee, Subsection 3, Section IX.
Paper presented: *Possibility of Introducing a Common Monetary Standard as between the Republics of America.*

KEMP, JAMES F., Columbia University, New York, N. Y.
Alternate—Geological Society of America.
Member of Committee, Subsection 3, Section VII.

KEMPF, E. J., Government Hospital for the Insane, Washington, D. C.
Delegate—Government Hospital for the Insane.

KENNELLY, A. E., 1 Kennedy Road, Cambridge, Mass.
Alternate—Illuminating Engineering Society.

KENT, WILLIAM, 64 Orange Road, Montclair, N. J.
Paper presented: *Economy of Steam Power Plants Using Gas, Gasoline, Coal, and Other Pan American Fuels.*

KEPPEL, F. P., 407 West One hundred and seventeenth Street, New York, N. Y.
Delegate—American Association for International Conciliation.

KERR, W. H., United States Office of Markets and Rural Organization, Department of Agriculture, Washington, D. C.
Paper presented: *Financing Cooperative Marketing Associations.*

KEY-AYALA, SANTIAGO, Caracas, Venezuela, South America.
Paper presented: *Exchange of Professors and Students and the Mutual Recognition of Degrees.*

KEYES, EDWARD L., Jr., 109 East Thirty-fourth Street, New York, N. Y.
Paper presented: *Medical and Social Problems of Venereal Diseases.*

KIES, W. S., Vice President, National City Bank, New York, N. Y.
Alternate—American Bankers' Association.

KIMBALL, H. H., United States Weather Bureau, Washington, D. C.
Paper presented: *Measurements of the Intensity of Solar and Sky Radiation.*

KING, CLARENCE P., President, Washington Railway and Electric Company, Washington, D. C.
Delegate—American Electric Railway Association.

KING, CLYDE L., Assistant Professor of Political Science, University of Pennsylvania, Philadelphia, Pa.
Delegate—American Academy of Political and Social Science.

KINGSBURY, SUSAN M., Professor, Bryn Mawr College, Bryn Mawr, Pa.
Alternate—Association of Collegiate Alumnæ.
Member of Committee, Subsection 4, Section IV.
Paper presented: *The Education of Women as Measured in Civic and Social Relations.*

KINLEY, DAVID, Dean, University of Illinois, Urbana, Ill.
Delegate—
American Academy of Political and Social Science.
University of Illinois.
Chicago Association of Commerce.
Alternate—Division of Economics and History, Carnegie Endowment for International Peace.
Member of Committee, Subsection 2, Section IX.
Papers presented:
The Industrial and Financial Investments as a Basis of Foreign Trade Expansion.
Entrance Requirements to Colleges of Commerce.

KINYOUN, JOSEPH J., Health Department of the District of Columbia, Washington, D. C.
Delegate—Health Department of the District of Columbia.

KLEINSMID, R. B. VON, President, University of Arizona, Tucson, Ariz.
Delegates—University of Arizona.
Paper presented: *Causes of Crime.*

KLEINSTUCK, CARL, Kalamazoo, Mich.
Delegate—American Peat Society.

KNAB, F., Bureau of Entomology, United States Department of Agriculture, Washington, D. C.
Paper presented: *Carlos Finlay on the House Mosquitoes of Habana.*

KNAPP, HARRY S., The Marlborough, Washington, D. C.
Member of Committee, Subsection 1, Section VI.

KNIGHT, ALBION W., Vice Chancellor, University of the South, Sewanee, Tenn.
Delegate—University of the South.

KNOWLES, MORRIS, Oliver Building, Pittsburgh, Pa.
Delegate—University of Pittsburgh.
Paper presented: *Collection and Disposal of Municipal Refuse.*

KNOX, C. W., Office of City Engineer, Seattle, Wash.
Delegate—Pacific Northwest Society of Engineers.

KNOX, J. H. MASON, The Severn, Baltimore, Md.
Delegate—American Association of Medical Milk Commissioners.
Alternate—American Pediatric Society.

KOBER, GEORGE M., Dean and Professor of Hygiene, Medical School, Georgetown University, Washington, D. C.
Chairman of Subsection C, Section VIII.

KOFOID, C. A., Professor, University of California, Berkeley, Cal.
Paper presented: *The Biological and Medical Significance of the Life History of Intestinal Flagellates.*

KOLMER, J. A., University of Pennsylvania, Philadelphia, Pa.
Paper presented: *Anaphylactic Reactions in the Diagnosis of Disease and as an Index of Resistance.*

KOREN, JOHN, 784 Beacon Street, Boston, Mass.
Alternate—American Statistical Association.

KORNER, ALBERTO, Santo Domingo 628, Santiago, Chile, South America.
Honorary Official Delegate of Chile.

KRAUS, R., Bacteriological Institute of the National Department of Hygiene, Buenos Aires, Argentina.
Papers presented:
Cultivation of the Parasite of Rabies by Noguchi's Method.
Treatment of Whooping Cough.

KREHBIEL, E. B., Leland Stanford Junior University, Stanford University, Cal.
Delegate—National Education Association.

KROEBER, A. L., Curator, University of California, Berkeley, Cal.
Member of Committee of Subsection 1, Section I.
Paper presented: *Tribes of the Pacific Coast.*

KUHN, ARTHUR K., 120 Broadway, New York, N. Y.
Member of Committee of Subsection 1, Section VI.
Paper presented: *Should International Law be Codified? And if so, Should it be Done through Governmental Agencies or by Private Scientific Societies?*

KULLMER, C. J., 505 University Place, Syracuse, N. Y.
Paper presented: *Monthly Storm Frequency in the United States.*

KUTZ, CHARLES W., Corps of Engineers, United States Army, Washington, D. C.
Delegate—Pacific Northwest Society of Engineers.
Member of Committee of Section V.

KUZELL, C. R., Anaconda Copper Mining Company, Anaconda, Mont.
Paper presented: *Coal-dust Firing in Reverberatories.*

LAINEZ, SAMUEL, Tegucigalpa, Honduras, Central America.
Paper presented: *The Desirability of Uniform Laws Throughout the Pan American Countries for the Protection of Antiquities, the Systematic Promotion of Anthropological Research, and the Collection and Scientific Treatment of Museum Materials.*

LAKE, E. R., American Pomological Society, United States Department of Agriculture, Washington, D. C.
Delegate—American Pomological Society.

LAMB, D. S., United States Army Medical Museum, Washington, D. C.
Delegate—United States Army Medical Museum.
Member of Committee of Subsection 3, Section I.

LAMBERT, R. A., Columbia University, New York, N. Y.
Paper presented: *Tissue Culture in Cancer.*

LAMBERT, SAMUEL W., 130 East Thirty-fifth Street, New York, N. Y.
Paper presented: *The Development of a Fifth Year in Medical Education.*

LAMME, MAURICIO, Montevideo, Uruguay, South America.
Member Cooperating Committee, Uruguay.

LAMON, HARRY M., United States Bureau of Animal Industry, Department of Agriculture, Washington, D. C.
Paper presented: *The Poultry Industry—Its Importance in Agricultural Development.*

LANDA, LUIS, Director of Public Instruction, Tegucigalpa, Honduras, Central America.
Honorary Member.
Paper presented: *Present Condition of Meteorology and Seismology in Honduras.*

LANDRETH, WILLIAM B., Deputy State Engineer, Albany, N. Y.
Delegate—Albany Society of Civil Engineers.
Paper presented: *New York State Canals.*

LANE, ALFRED C., Cambridge, Mass.
Delegate—Tufts College.

LANE, C. H., Office of Experiment Stations, Department of Agriculture, Washington, D. C.
Delegate—American Association for the Advancement of Agricultural Teaching.

LANE, Hon. FRANKLIN K., Secretary of the Interior, Washington, D. C.
Address before Opening Session of Section VII.

LANGE, ALEXIS F., University of California, Berkeley, Cal.
Member of Committee of Subsection 2, Section IV.

LANGSDORF, ALEXANDER S., Dean, School of Engineering and Architecture, Washington University, St. Louis, Mo.
Alternate—Washington University.

LANGWORTHY, C. FORD, Office of Home Economics, Department of Agriculture, Washington, D. C.
Delegate—
American Home Economics Association.
Middlebury College.

LAPPIN, RICHARD, Bureau of the Census, Washington, D. C.
Alternate—Bureau of the Census.

LAPRADE, WILLIAM T., Trinity College, Durham, N. C.
Delegate—Trinity College.

LARA, CARLOS, former Minister from Costa Rica to Guatemala, 45 Broadway, New York City.
Delegate—International Central American Bureau.

LARA, JUAN B., Professor, University of Mendoza, Mendoza, Argentina, South America.
Paper presented: *Action of Sulphate of Manganese in Wine Fermentation.*

LARNER, JOHN B., Washington Loan and Trust Company, Washington, D. C.
Alternate—Washington Branch of Archæological Institute of America.

LARREINAGA, MIGUEL, Guatemala City, Guatemala, Central America.
Paper presented: *What Should Be the Primary and What the Secondary Purpose of High School Education? To What Extent Should Courses of Study in the High School be Determined by the Requirements for Admission to College, and to What Extent by the Demands of Industrial and Civic Life?*

LASGOYTI, BAUTISTA, Montevideo, Uruguay, South America.
Paper presented: *The Electric Current.*
Member Cooperating Committee, Uruguay.

LATHROP, JULIA, The Children's Bureau, Department of Labor, Washington, D. C.
Delegate—Children's Bureau, Department of Labor.
Paper presented: *The Education of Women as Related to the Welfare of Children.*

LAVAL, RAMÓN A., Santiago, Chile, South America.
Paper presented: *Convenience of the Establishment of an International Society of Latin-American Folklore.*

LAVALLE Y GARCÍA, JOSÉ ANTONIO, Avenida Chorrillos, 348 Barranco, Perú, South America.
Member Cooperating Committee, Perú.

LAVIS, FRED, 50 Church Street, New York, N. Y.
Papers presented:
Uniform Gauge for Railways in Pan America.
Lines of Future Railway Development.

LAW, WILLIAM A., President, First National Bank, Philadelphia, Pa.
Delegate—American Bankers' Association.

LAZO ARRIAGA, ANTONIO, 30 Broad Street, New York, N. Y.
Delegate—School of Law, University of Leon, Nicaragua, Central America.

LEBREDO, MARIO G., Chief of the Section and of the Laboratory of Investigations, Board of Health of Habana, Habana, Cuba.
Official Delegate of Cuba.
Member Cooperating Committee, Cuba.
Paper presented: *Beriberi, an Epidemiologic and Experimental Study.*

LECUNA, VICENTE, Director, School of Arts and Crafts, Caracas, Venezuela, South America.
Official Delegate of Venezuela.
Member Cooperating Committee, Venezuela.

LE DEUC, CHARLES, Grinnell, Iowa.
Alternate—Grinnell College.

LEDOUX, J. W., Engineers' Club, Philadelphia, Pa.
Delegate—Engineers' Club, Philadelphia, Pa.

LEETE, JOHN HOPKIN, Carnegie Institute of Technology, Pittsburgh, Pa.
Alternate—Carnegie Institute of Technology.

LEFEVRE, EDWIN, Century Club, New York, N. Y.
Official Delegate of Panama.

LEGRAND, ENRIQUE, Montevideo, Uruguay, South America.
Member Cooperating Committee, Uruguay.

LEIGHTON, M. O., Consulting Engineer, 501 MacLachlen Building, Washington, D. C.
Member of Committee of Subsection 3, Section III.
Chairman of Subsection 4, Section V.
Papers presented:
Coordination in the Development of Our Water-Power Resources with Other Uses of Water.
Water-Power Resources of the United States.

LEITH, C. K., Professor, University of Wisconsin, Madison, Wis.
Delegate—University of Wisconsin.
Papers presented:
Conservation of Iron Ore.
Iron-Ore Deposits of the Americas.

LEIVA QUIRÓS, ELÍAS, School of Law of Costa Rica, San Jose, Costa Rica, Central America.
Paper presented: *The Attitude of the Government in the Matter of National Forests; Relation of Forest Culture to the Future Development of Central and South America.*

LEMUS, MANUEL, Guatemala City, Guatemala, Central America.
Paper presented: *Data for the History of Mining in Guatemala.*

LENG, CHARLES W., Secretary, New York Entomological Society, 231 West One hundred and thirty-fifth Street, New York, N. Y.
Alternate—New York Entomological Society.

LETONA HERNÁNDEZ, SANTIAGO, Dean, School of Medicine, Chemistry and Pharmacy, San Salvador, El Salvador, Central America.
President, Cooperating Committee, El Salvador.

LEWIS, J. HAMILTON, United States Senator, Washington, D. C.
Member of Committee of Subsection 1, Section VI.

LEWIS, NELSON P., Chief Engineer, Board of Estimate and Apportionment, Municipal Building, New York, N. Y.
Delegate—American Society of Municipal Improvements.

LIDBURY, F. A., Past President, American Electrochemical Society, Niagara Falls, N. Y.
Member of Committee of Subsection 4, Section VII.

LIEB, J. W., Secretary, National Society for the Promotion of Industrial Education, 140 West Forty-second Street, New York, N. Y.
Delegate—National Society for the Promotion of Industrial Education.

LINCOLN, WALDO, Worcester, Mass.
Member of Committee of Subsection 1, Section I.

LINDGREN, WALDEMAR, Massachusetts Institute of Technology, Boston, Mass.
Member of Committee of Subsection 1, Section III.
Member of Committee of Subsection 3, Section VII.
Paper presented: *Gold and Silver in the Western Hemisphere.*

LINDLEY, C. H., Mills Building, San Francisco, Cal.
Member of Committee of Subsection 1, Section VII.

LINDSAY, SAMUEL MCCUNE, Columbia University, New York, N. Y.
Alternate—National Child Labor Committee.

LINDSEY, EDWARD, Warren, Pa.
Alternate—American Institute of Criminal Law and Criminology.

LINHARES, JOSÉ, Member of the Brazilian Society of International Law, Rio Janeiro, Brazil, South America.
Paper presented: *The Relation of International Law to National Law in American Countries.*

LIPMAN, JACOB G., Dean of Agriculture, Rutgers College, New Brunswick, N. J.
Delegate—Rutgers College.

LISSON, CARLOS I., Lima, Peru, South America.
Paper presented: *Age of Peruvian Fossils.*

LITTLE, BASCOM, President, Cleveland Chamber of Commerce, Cleveland, Ohio.
Delegate—Cleveland Chamber of Commerce.

LITTLE, JAMES E., Mechanical Engineer, Felton, Cuba.
Paper presented: *The Iron Mines of Cuba and the Methods of Preparing Their Ore.*

LLERAS CODAZZI, RICARDO, Bogotá, Colombia, South America.
Paper presented: *Geological Sketch of the Department of Cundinamarca.*

LLOYD-JONES, CHESTER, Professor, University of Wisconsin, Madison, Wis.
Delegate—University of Wisconsin.

LODGE, HENRY CABOT, United States Senator, Washington, D. C.
Member of Committee, Subsection 1, Section VI.

LOEB, LEO, Washington University Medical School, St. Louis, Mo.
Papers presented:
General Tendencies and Problems.
Symposium on Cancer Research.

LONG, JOHN HARPER, Evanston, Ill.
Delegate—Northwestern University.

LOOMIS, H. M., Chemical Society of Washington, Washington, D. C.
Alternate—Chemial Society of Washington.

LÓPEZ LOEBA, RAMÓN, Director General of National Public Charities, Montevideo, Uruguay, South America.
Paper presented: *Relation of Individual to Community—Social Utility—Duties of Individuals to Community and Community to Individuals—Health Matters of Public Interest.*

LÓPEZ MESA, LUIS, Bogota, Colombia, South America.
Paper presented: *The Problem of Alcoholism and Its Possible Solution.*

LORD, EVERETT W., Dean, College of Business Administration, Boston University, Boston, Mass.
Delegate—Boston University.

LOUGH, JAMES E., New York University, New York, N. Y.
Paper presented: *The Teaching of Special Subjects in the Collegiate Course of Study for Business, Domestic and Foreign—Business Ethics and Psychology.*

LOVEJOY, A. O., Professor, Johns Hopkins University, Baltimore, Md.
Delegate—American Philosophical Association.

LOVEJOY, OWEN R., General Secretary, National Child Labor Committee, 105 East Twenty-second Street, New York City, N. Y.
Paper presented: *Child Labor and Public Health.*

LOVETT, EDGAR ODELL, President, Rice Institute, Houston, Tex.
Delegate—Rice Institute.

LOWE, ALFRED H., Tufts College, Tufts College, Mass.
Delegate—Tufts College.

LOWIE, ROBERT H., Assistant Curator, Department of Anthropology, American Museum of Natural History, New York, N. Y.
Delegate—New York Academy of Sciences.

LUCAS, ANTHONY, 2300 Wyoming Avenue NW. Washington, D. C.
Delegate—American Institute of Mining Engineers.

LUMMIS, CHARLES F., Southwest Museum, Los Angeles, Cal.
Member of Committee, Subsection 1, Section I.
Paper presented: *Humanizing of the Science of Man.*

LUNG, GEORGE A., Medical Inspector, United States Navy, Naval Torpedo Station, Newport, R. I.
Delegate—Association of Military Surgeons of the United States.

LUQUE, EDUARDO, Lima, Perú, South America.
Member of Cooperating Committee, Peru.

LURQUIN, CONSTANT, Director Meteorological Observatory of the Institute of Medicine, Sucre, Bolivia, South America.
Official Delegate of Bolivia.
Delegate—Medical Institute of Sucre.
Paper presented: *Bolivian Meteorology.*

LUTZ, FRANK E., American Museum of Natural History, New York, N. Y.
Delegate—New York Entomological Society.

LYNCH, ROBERT L., Health Department of the District of Columbia, Washington, D. C.
Alternate—Health Department of the District of Columbia.

LYONS, GUILLERMO, Montevideo, Uruguay, South America.
Paper presented: *Needs of an International Agreement on Ship Tonnage.*

LYSTER, Major T. C., United States Army, 1720 H Street NW., Washington, D. C.
Paper presented: *Dr. Liceaga and Yellow Fever.*

LYSTER, Major WILLIAM J. L., Office of Surgeon General, War Department, Washington, D. C.
Delegate—Office of the Surgeon General, War Department.
Medical Department of the United States Army, War Department.

MCADOO, Hon. WILLIAM G., Secretary of the Treasury, Treasury Department, Washington, D. C.
Address of Welcome at Opening Session of Section IX.

MCALLISTER, Capt. C. A., Chief United States Coast Guard, Treasury Department, Washington, D. C.
Alternate—Society of Naval Architects and Marine Engineers.
Chairman of Subsection 2, Section V.
Member of Committee of Section V.
Paper presented: *Engineering and Scientific Work of the United States Coast Guard.*

MCATEE, W. L., Bureau of Biological Survey, Department of Agriculture, Washington, D. C.
Alternate—Bureau of Biological Survey.

MCBAIN, HOWARD L., Professor, Columbia University, New York City, N. Y.
Delegate—National Municipal League.

MCCALLIE, S. W., State Geologist, Atlanta, Ga.
Delegate—Atlanta Chamber of Commerce.

MCCAMPBELL, E. F., State Board of Health of Ohio, Columbus, Ohio.
Delegate—Ohio State Board of Health.

MCCASKEY, HIRAM D., United States Geological Survey, Washington, D. C.
Alternate—United States Geological Survey.

MCCLELLAN, WILLIAM, 33 West Thirty-ninth Street, New York City, N. Y.
Delegate—American Institute of Electrical Engineers.

MCCLELLAND, JAMES FARLEY, Professor, Yale University, New Haven, Conn.
Delegate—Yale University.

McCORMICK, E. C., Chief Division of Rural Engineering, Department of Agriculture, Washington, D. C.
Paper presented: *Agricultural Implements and Machinery.*

McCORMICK, SAMUEL BLACK, Chancellor University of Pittsburgh, Pittsburgh, Pa.
Delegate—University of Pittsburgh.

McCOY, JOS. S., Jr., Government Actuary, Treasury Department, Washington, D. C.
Delegate—Stevens Institute of Technology.

McCREA, ROSWELL C., Dean The Wharton School, University of Pennsylvania, Philadelphia, Pa.
Paper presented: *The Argument for a Separate or Combined Course of Commercial Study in Schools and Colleges.*

McCRORY, S. H., Agricultural Department, Washington, D. C.
Delegate—Office Public Roads and Rural Engineering.

McCULLOCH, Col. C. G., 1831 Lamont Street NW., Washington, D. C.
Delegate—Medical Department of the Army.

McCULLOCH, ERNEST, 1735 Monadnock Block, Chicago, Ill.
Delegate—Western Society of Engineers.

McCULLOCH, JAMES E., Nashville, Tenn.
Delegate—Southern Sociological Congress.

McCURDY, J. H., 93 Westford Avenue, Springfield, Mass.
Alternate—American Physical and Educational Association.

McDONNELL, H. B., Maryland Agricultural College, College Park, Md.
Delegate—Maryland Agricultural College.

McDOWELL, Miss LOUISE SHERWOOD, Professor, Wellesley College, Wellesley, Mass.
Delegate—Wellesley College.

McELHENEY, V. K., New York, N. Y.
Paper presented: *The Economic Value of the Auction as a Distributer of Perishable Commodities.*

McEVITT, JOHN COWELL, 407 Clinton Street, Brooklyn, N. Y.
Alternate—New York Academy of Medicine.

McFARLAND, J. HORACE, President American Civic Association, Harrisburg, Pa.
Delegate—American Civic Association.
Paper presented: *The Human Side of City Planning.*

McGUIRE, STUART, 200 East Franklin Street, Richmond, Va.
Alternate—Medical Society of Virginia.

McILHINEY, P. C., Society of Chemical Industry, New York, N. Y.
Member of Committee, Subsection 4, Section VII.

McKENNA, JOSEPH, Associate Justice of the Supreme Court of the United States.
Member of Committee, Subsection 1, Section VI.

McKNIGHT, Mrs. W. F., Grand Rapids, Mich.
Delegate—Grand Rapids Association of Commerce.

McLACHLEN, ARCHIBALD M., McLachlen Building, Tenth and G Streets NW., Washington, D. C.
Alternate—Washington Board of Trade.

McLAUGHLIN, ALLAN J., United States Public Health Service.
Paper presented: *Travel and Transportation.*

McLEAN, CHARLES F., 2122 Fifth Avenue, New York City, N. Y.
Paper presented: *Criminal Law and Procedure with Special Reference to the Scope and Limits of Jury Trials and the Several Theories for the Punishment of Criminals, and Differences between the Criminal Procedure of States Following the Civil Law and Those Following the Common Law.*

McLEMORE, JEFF, Member of Congress, United States House of Representatives, Washington, D. C.
Delegate—Chamber of Commerce, Houston, Tex.

McMILLIN, EMERSON, 297 Madison Avenue, New York City, N. Y.
Alternate—
Aero Club of America.
American Society of Aeronautic Engineers.

McPHAUL, JOHN, 1223 Irving Street NE., Washington, D. C.
Delegate—General Land Office.

McPIKE, EUGENE F., Secretary American Railway Perishable Freight Association, Chicago, Ill.
Paper presented: *Transportation of Perishable Commodities—Need of Cooperation by Shippers with Carriers.*

McVEY, FRANK L., President University of North Dakota, Grand Forks, N. Dak.
Delegate—University of North Dakota.
Paper presented: *Relation of the American University to Public Service, and the Work of Governmental Administration.*

MACCLINTOCK, SAMUEL, Professor, La Salle Extension University, Chicago, Ill.
Paper presented: *Special Courses for Commercial Study—University Extension Work for Men in Business.*

MACCRACKEN, John H., President Lafayette College, Easton, Pa.
Delegate—Lafayette College.

MACCURDY, GEORGE GRANT, Assistant Professor, Yale University, New Haven, Conn.
Delegate—Peabody Museum of Yale University.
Member of Committee, Subsection 3, Section I.

MACFARLAND, HENRY B. F., Evans Building, Washington, D. C.
Delegate—National Tax Association.

MACLAURIN, RICHARD C., President Massachusetts Institute of Technology, Boston, Mass.
Delegate—Massachusetts Institute of Technology.

MACKAY, T. C., Professor, New Mexico State School of Mines, Socorro, N. Mex.
Delegate—New Mexico State School of Mines.

MADDOX, R. L., Superintendent of Foreign Mails, United States Post Office Department, Washington, D. C.
Alternate—Postmaster General's Office.

MADRID, ANTONIO, Tegucigalpa, Honduras, Central America.
Paper presented: *The Attitude of American Countries Toward International Arbitration and the Peaceful Settlement of International Disputes.*

MAGNOU, PEDRO B., Montevideo, Uruguay, South America.
Member of Cooperating Committee, Uruguay.

MAGOUN, H. A., New York Shipbuilding Company, Camden, N. J.
Member of Committee on Marine Engineering, Section V.

MAGRUDER, WILLIAM T., 342 West Ninth Street, Columbus, Ohio.
Paper presented: *Significance of Engineering Degrees in the United States.*

MAILLOUX, C. O., 20 Nassau Street, New York, N. Y.
Alternate—American Institute of Consulting Engineers.

MAIMO SARRASÍN, F., Montevideo, Uruguay, South America.
Paper presented: *The Manganese in the Arable Stratum of Uruguay.*

MAIN, J. H. T., Professor, Grinnell College, Grinnell, Iowa.
Delegate—Grinnell College.

MALDONADO, SAMUEL DARÍO, Caracas, Venezuela, South America.
Member of Cooperating Committee, Venezuela.

MALL, F. P., Professor, Johns Hopkins University, Baltimore, Md.
Member of Committee, Subsection 3, Section I.

MANDUJANO, Miss GRACIELA, Santiago, Chile, South America.
Paper presented: *The Teaching of Modern Languages in the Secondary Schools in Chile.*

MANN, CHARLES R., Carnegie Foundation for the Advancement of Teaching, New York, N. Y.
Paper presented: *The Study of Engineering Education by the Joint Committee of the National Engineering Societies.*

MANNING, VAN H., Director United States Bureau of Mines, Department of the Interior, Washington, D. C.
Delegate—Bureau of Mines.
Chairman of Subsection 1, Section VII.
Paper presented: *The United States Bureau of Mines.*

MANNING, WM. R., Professor, University of Texas, Austin, Tex.
Delegate—University of Texas.
Paper presented: *Method of Approach in Teaching Ethics to Girls and Young Women.*

MANRIQUE, FRANCISCO, Guayaquil, Ecuador, South America.
Honorary Member.
Papers presented:
Highways in Ecuador.
Sanitary Engineering in Ecuador.

MANRIQUE, MARTÍN A., Engineer, Bogota, Colombia, South America.
Papers presented:
General Study of the Construction and Conservation of Roads and Streets in General.
Highways and Streets in Bogota.

MANSFIELD, GEORGE R., Geologist, United States Geological Survey, Washington, D. C.
Paper presented: *Phosphate Resources of the United States.*

MANZANILLA, JOSÉ MATÍAS, Lima, Peru, South America.
Member of Cooperating Committee, Peru.

MARBURG, EDGAR, Professor, University of Pennsylvania, Philadelphia, Pa.
Delegate—International Association for Testing Materials.

MARBUT, CURTIS F., Bureau of Soils, Department of Agriculture, Washington, D. C.
Alternate—Bureau of Soils.

MARÍN VICUÑA, SANTIAGO, Civil Engineer, Santiago, Chile, South America.
Paper presented: *Uniform Gauge for Railways.*

MARLATT, C. L., Chairman United States Federal Horticultural Board, Department of Agriculture, Washington, D. C.
Alternate—American Association of Economic Entomologists.
Member of Committee, Subsection 6, Section III.
Paper presented: *Pan American Cooperation in Plant Quarantine.*

MÁRQUEZ, JUAN A., Montevideo, Uruguay, South America.
Paper presented: *Direct Taxation.*

MARSH, J. FRANK, Charleston, W. Va.
Delegate—Association of State Superintendents.

MARSHALL, F. R., Bureau of Animal Industry, Department of Agriculture, Washington, D. C.
Member of Committee, Subsection 5, Section III.
Paper presented: *The Relation between the Wool and Mutton Production in North and South American Sheep Industries.*

MARSHALL, L. C., Dean College of Commerce and Administration, University of Chicago, Chicago, Ill.
Member of Committee, Subsection 10, Section IV.

MARSHALL, R. B., Chief Geographer United States Geological Survey, Washington, D. C.
Member of Committee, Section V.
Paper presented: *Engineering and Other Scientific Work of the United States Geological Survey.*

MARSHALL, WALDO H., 29 West Thirty-ninth Street, New York City, N. Y.
Alternate—American Society of Mechanical Engineers.

MARSTRANDER, ROLF, Montevideo, Uruguay, South America.
Paper presented: *Report on the Mineral Resources of Uruguay.*

MARTÍN, JUAN A., Rear Admiral of the Argentine Navy, 135 Central Park West, New York City, N. Y.
Official Delegate of Argentina.
Delegate—
Navy Club of Argentina.
National Engineering Society of Argentina.

MARTIN, PERCY ALVIN, Stanford University, Cal.
Delegate—Leland Stanford Junior University.

MARTÍNEZ DE ALVA, SALVADOR, 25 Michigan Avenue, Washington, D. C.
Delegate—Catholic University of America.

MARTÍNEZ, EDUARDO, Montevideo, Uruguay, South America.
Member Cooperating Committee, Uruguay.

MARTINS PINHEIRO, H. C. DE, Consul General of Brazil, New York City.
Honorary Member.
Paper presented: *Investment of Capital in Brazil.*

MARVIN, CHARLES FREDERICK, Chief United States Weather Bureau, Washington, D. C.
Delegate—United States Weather Bureau.
Chairman, Subsection B, Section II.
Address of Welcome, Opening Session of Subsection B.
Paper presented: *The Organization of Meteorology and Seismology in the United States.*

MASFERRER, ALBERTO, San Salvador, El Salvador, Central America.
Member Cooperating Committee, El Salvador.

MASON, WILLIAM PITT, Professor, Rensselaer Polytechnic Institute, Troy, N. Y.
Delegate—Rensselaer Polytechnic Institute.
Paper presented: *Recent Development in Water Purification and Sewage Disposal.*

MASSA, DIÓGENES, Buenos Aires, Argentina, South America.
Paper presented: *Operative Treatment of Voluminous Unilocular Cysts.*

MATAMOROS SANDOVAL, LUIS, President of the Faculty of Engineers, San José, Costa Rica, Central America.
Member Cooperating Committee, Costa Rica.
Paper presented: *A Contribution to the Study of the Earth, and the Remarkable Parallelism of the Earth's Mountain System.*

MATHESON, K. G., President, Georgia School of Technology, Atlanta, Ga.
Delegate—Georgia School of Technology.
Address before General Session of Section IV to discuss the Pan American topic, "Secondary Education."

MATHON, CHARLES, Professor, School of Medicine of Port au Prince, Port au Prince, Haiti.
Chairman of the Haitian Official Delegation.
Paper presented: *Study of the So-Called "Fruit Fever."*

MATO, SILVESTRE, in Charge of the Geographic-Military Service of the Republic of Uruguay, Montevideo, Uruguay.
Member Cooperating Committee, Uruguay.
Paper presented: *Resolutions Presented to the Second Pan American Scientific Congress.*

MATOS, JOSÉ, Professor, Faculty of Law of Guatemala, Guatemala City, Guatemala, Central America.
Honorary Member.
Secretary Cooperating Committee, Guatemala.
Paper presented: *The Study of International Law in American Countries, and Means by Which It May be Made More Effective.*

MAÚRTUA, VÍCTOR, Member of the Chamber of Representatives of Peru, 301 Gran Avenida, Barranco, Peru, South America.
Delegate—
Academy of Jurisprudence and Legislation.
International Law Society of Peru.
University of San Marcos.
Paper presented: *The Unification of International Law in the American Continent.*

MAX OLANO, J., Member of the Faculty of Medicine, Chemistry and Pharmacy, San Salvador, El Salvador, Central America.
Member Cooperating Committee, El Salvador.

MAYER, ALFRED GOLDSBOROUGH, Stevens Institute of Technology, Hoboken, N. J.
Delegate—Stevens Institute of Technology.

MAYER, CÁNDIDO P., Buenos Aires, Argentina, South America.
Paper presented: *Lymphocystosis in Syphilitics.*

MAYNARD, JAMES, Knoxville, Tenn.
Delegate—Knoxville Board of Commerce.

MAYO, N. S., Ravenswood, Avenue, Chicago, Ill.
Delegate—American Veterinary Medicine Association.

MAZA, JOSÉ, Attorney at Law, Santiago, Chile, South America.
Paper presented: *Proportional Representation in Democracies—the Different Systems of Suffrage and Their Theoretical and Practical Defects and Qualities.*

MAZZA, SALVADOR, Bacteriological Institute of the National Department of Hygiene, Buenos Aires, Argentina.
Papers presented: Three reprints.

MEAD, CHARLES W., American Museum of Natural History, New York, N. Y.
Paper presented: *The Puma Motive in Ancient Peruvian Art.*

MEAD, S. C., 233 Broadway, New York, N. Y.
Delegate—Merchants Association of New York.

MEANS, PHILIP AINSWORTH.
Paper presented: *Two Versions of the Growth of the Inca Empire.*

MEES, CARL LEO, President, Rose Polytechnic Institute, Terre Haute, Ind.
Delegate—Rose Polytechnic Institute.
Member of Committee, Subsection 6, Section IV.

MEGRAW, H. A., Engineering and Mining Journal, Tenth Avenue and Thirty-sixth Street, New York, N. Y.
Paper presented: *Cyaniding in South America.*

MEIKLEJOHN, ALEXANDER, President, Amherst College, Amherst, Mass.
Delegate—Amherst College.

MEJÍA, GONZALO, Medellin, Colombia, South America.
Paper presented: *Air-Propelled Gliding Boats and Their Applicability to Rapid Navigation in South American Rivers.*

MELHADO ALFREDO, Panama City, Panama.
Member Cooperating Committee, Panama.

MELTZER, S. J., Rockefeller Institute, New York, N. Y.
Paper presented: *The Results Obtained in the Use of Magnesium on Tetanus in the Present War.*

MELVIN, A. D., Chief United States Bureau of Animal Industry, Department of Agriculture, Washington, D. C.
Paper presented: *Are Uniform Regulations Feasible Among the Different American Countries for the Prevention of the Introduction and Dissemination of the Diseases of Different Animals?*

MENDEL, LAFAYETTE B., Professor, Yale University, New Haven, Conn.
Alternate—American Society of Biological Chemists.

MENDENHALL, W. C., United States Geological Survey, Washington, D. C.
Paper presented: *The Federal Government and the Nation's Mineral Resources.*

MENDES DE MORAES, FELICIANO, Barao Mesquita 587, Rio de Janeiro, Brazil, South America.
Delegate—
Engineers' Club of Rio de Janeiro.
Polytechnic Institute of Rio de Janeiro.

MENDES, JOSÉ, Professor, University of Sao Paulo, Brazil, South America.
Paper presented: *The Relation of International Law to National Law in American Countries.*

MÉNDEZ, His Excellency JOAQUÍN, Envoy Extraordinary and Minister Plenipotentiary of Guatemala to the United States, 1604 K Street NW., Washington, D. C.
Chairman of the Official Delegation of Guatemala.

MÉNDEZ, JULIO, Buenos Aires, Argentina, South America.
Paper presented: *Argentine Biological Theory of Immunity.*

MENEZES, ALVARO DE, Rio de Janeiro, Brazil, South America.
Paper presented: *Brazil—Contribution to Her Economic and Financial Study from 1888 to 1915.*

MERCAU, AGUSTÍN, Civil Engineer, Peru 222, Buenos Aires, Argentina, South America.
Official Delegate of Argentina.
Delegate—
Faculty of Exact Sciences, of Physical and Natural Sciences, of the National University of Buenos Aires.
National University of La Plata.
Faculty of Physics, Mathematics, and Astronomy of the National University of La Plata.
National Engineering Society of Buenos Aires.
Argentine Scientific Society.
Papers presented:
Hydrographical Works in Rio de La Plata—New Appliances—Drain Works in the Southern Part of the Province of Buenos Aires.

MERCER, J. W., General Manager, South American Development Company, New York, N. Y.
Paper presented: *Mining in Ecuador.*

MERIAM, LEWIS, Bureau of Municipal Research, New York, N. Y.
Paper presented: *Statistics of Infant Mortality.*

MERRILL, O. C., Chief Engineer, United States Forest Service, Washington, D. C.
Paper presented: *Principles of a Federal Water Power Policy for the Public Lands of the United States.*

MERRIMAN, MANSFIELD, 1071 Madison Avenue, New York, N. Y.
Delegate—International Association for the Testing of Materials.

MERY, JORGE, Captain of the Chilean Navy, Santiago, Chile, South America.
Official Delegate of Chile.

MESTANZA, ERNESTO A., Professor, National Institute "Mejía," Quito, Ecuador, South America.
Member Cooperating Committee, Ecuador.

METTEWIE, HENRI, La Paz, Bolivia, South America.
Paper presented: *What Should be the Place of Industrial Education in the School System of the American Republics? Should it be Supported by Public Taxation? Should it be Considered under Separate control? How and to What Extent May Industrial Schools Cooperate with Employers of Labor?*

MEYER, BALTHASAR H., Interstate Commerce Commission, Washington, D. C.
Alternate—Interstate Commerce Commission.
Member of Committee, Subsection 1, Section IX.

MEYER, H. H. B., Library of Congress, Washington, D. C.
Alternate—American Library Association.

MEZ, JOHN, Colorado Building, Washington, D. C.
Alternate—American Peace Society.

MEZA, CARLOS A., Secretary, Legation of El Salvador, 1800 Connecticut Avenue, Washington, D. C.
Delegate—
National Museum of El Salvador.
University of El Salvador.

MICHAUD, GUSTAVO, San Jose, Costa Rica, Central America.
Paper presented: *Some Phenomena of Criptocromism.*

MICHELSON, ALBERT, Head, Department of Physics, University of Chicago, Chicago, Ill.
Delegate—
American Philosophical Society.
University of Chicago.

MIGONE, LUIS E., Asuncion, Paraguay, South America.
Delegate—Paraguayan Gymnasium.
Honorary Member.
Papers presented:
La Buba (Leishmaniosis Americana).
A New Plant Flagellate.
Parasitology of Certain Animals.

MILLÁS Y HERNÁNDEZ, JOSÉ CARLOS, Assistant Director, National Observatory of Cuba, Habana, Cuba.
Official Delegate of Cuba.
Paper presented: *Origin and Course of West Indian Hurricanes.*

MILLER, BENJAMIN L., Professor, Lehigh University, South Bethlehem, Pa.
Delegate—Lehigh University.
Papers presented:
Fuel Situation in the Andean Plateau.
Genesis of Chilean Nitrate Deposits.

MILLER, CHARLES M., 140 West Forty-second Street, New York, N. Y.
Alternate—National Commercial Teachers' Federation.

MILLER, CYRUS C., 55 Liberty Street, New York, N. Y.
Paper presented: *Municipal Terminal Markets.*

MILLER, E. R., United States Weather Bureau, Madison, Wis.
Paper presented: *The Meteorological Influences of Lakes.*

MILLER, Mrs. GEORGE A., 1361 East Broadway, Long Beach, Cal.
Delegate—National Federation of College Women.

MILLER, HARRY B., University of Oregon, Portland, Oreg.
Paper presented: *University of Oregon—Problems of the Detached School of Commerce.*

MILLER, P. G., Commissioner of Education, San Juan, P. R.
Delegate—University of Porto Rico.

MILLS, Rev. JOHN NELSON, The Ontario, Washington, D. C.
Delegate—Religious Education Association.

MILLS, W. C., Ohio State University, Columbus, Ohio.
Member of Committee, Subsection 2, Section I.

MIÑO CARLOS A., Assistant Director Public Health, Quito, Ecuador, South America.
Member Cooperating Committee, Ecuador.

MIRANDA, FRANCISCO, Montevideo, Uruguay, South America.
Paper presented: *Estuary of La Plata.*

MITCHELL, JAMES F., 1349 Nineteenth Street NW., Washington, D. C.
Alternate—American Surgical Association.

MITCHELL, SAMUEL C., President, Delaware College, Newark, Del.
Delegate—Delaware College.

MITCHELL, W. C., Columbia University, New York, N. Y.
Paper presented: *The Rôle of Money in Economic Theory.*

MOHLER, J. R., Department of Agriculture, Washington, D. C.
Delegate—
Bureau of Animal Industry.
American Veterinary Medicine Association.
Member of Committee, Subsection 5, Section III.

MONAHAN, A. C., United States Bureau of Education, Department of the Interior, Washington, D. C.
Alternate—American Association for the Advancement of Agricultural Teaching.

MONDELL, FRANK W., Member of Congress, H use of Representatives, Washington, D. C.
Delegate—International Dry Farming Congress.

MONROE, PAUL, Teachers College, Columbia University, New York, N. Y.
Member of Committee, Subsection 1, Section IV.
Paper presented: *Commercial Education in Secondary Schools.*

MONTANÉ, LUIS, Professor, University of La Habana, Cuba, La Habana, Cuba.
Official Delegate of Cuba.
Delegate—Faculty of Science and Letters of the University of Habana.
Papers presented:
The Pre-Columbian Indians of the Eastern Extremity of Cuba.
Discovery of the First Graves of the Indians of Cuba.
The Cuban Fossil Man.

MONTEJO, LEOPOLDO, Director, Bureau of Information, Legation of Colombia, 1319 K Street NW., Washington, D. C.
Delegate—National Museum.

MONTESSUS DE BALLORE, Count DE, Santiago, Chile, South America.
Paper presented: *Organization of Macroseismological Observations in America.*

MONTEVERDE, EDUARDO, Professor, National University of Montevideo, Avenida 18 de Julio 968, Montevideo, Uruguay, South America.
Honorary Member.
Paper presented: *Final Aim of the Education of Women.*

MONTEVERDE, JUAN, Professor, University of Montevideo, Avenida 18 de Julio 904, Montevideo, Uruguay, South America.
Official Delegate of Uruguay.
Delegate—
National Commission of Physical Education.
Society of Friends of Popular Education of Montevideo.
Member Cooperating Committee, Uruguay.
Papers presented:
To What Extent Should Courses of Study in the High School Be Determined by the Requirements for Admission to College, and to What Extent by the Demands of Industrial and Civic Life?
To What Extent may College Courses in Engineering Be Profitably Supplemented by Practical Work in the Shop?
To What Extent may Laboratory Work in Engineering Be Replaced Through Cooperation with Industrial Plants?
Hygiene of Habitations.

MONTOLÍO, ANDRÉS J., Associate Justice to the Supreme Court of the Dominican Republic, Santo Domingo, Dominican Republic.
Honorary Member.
Paper presented: *Judicial Organization with Special Reference to the Nomination or Election of Judges—Organization and Functions of the Minor Judiciary.*

MONTORO, RAFAEL, Secretary to the President of Cuba, Habana, Cuba.
Delegate—Cuban Society of International Law.
President Cooperating Committee, Cuba.

MOOMAW, C. W., United States Office of Markets and Rural Organization, Department of Agriculture, Washington, D. C.
Paper presented: *Developing Foreign Markets for Apples.*

MOORE, A. C., Professor, University of South Carolina, Columbia, S. C.
Delegate—University of South Carolina.

MOORE, BARRINGTON, 925 Park Avenue, New York, N. Y.
Paper presented: *Scientific Forestry for Latin America.*

MOORE, ERNEST CARROLL, Harvard University, Cambridge, Mass.
Member of Committee, Subsection 1, Section IV.
Paper presented: *Education of the City Child.*

MOORE, E. H., Professor, University of Chicago, Chicago, Ill.
Delegate—American Mathematical Society.

MOORE, H. F., Bureau of Fisheries, Department of Commerce, Washington, D. C.
Delegate—United States Bureau of Fisheries, Department of Commerce.

MOORE, JOHN BASSETT, Professor, Columbia University, New York, N. Y.
Delegate—
Bar Association of Costa Rica.
Association of American Law Schools.
Pan American Society of the United States.
American Political Science Association.
Barnard College.
Columbia University.
Member of Committee, Subsection 1, Section VI.
Papers presented:
The Relation of International Law to National Law in American Countries.
Organization and Development of a Plan for the Systematic Exchange of University Students and University Professors Between the Several American Republics.

MOOREHEAD, WARREN K., Curator, Department of Archæology, Phillips Academy, Andover, Mass.
Delegate—Phillips Academy.
Board of Indian Commissioners.
Member of Committee, Subsection 2, Section I.

MORAGA PORRAS, A., Santiago, Chile, South America.
Papers presented:
Is the Muscular Exercise of Respiration, Swedish System, a Physiological One?
Mental Equivalence Between Man and Woman from the Sociological Point of View.
Sociological, Pedagogical, and Hygienic Conclusions.

MORALES, His Excellency EUSEBIO A., Envoy Extraordinary and Minister Plenipotentiary of Panama to the United States, Stoneleigh Court, Washington, D. C.
Chairman of the Official Delegation of Panama.

MORALES MACEDO, CARLOS, 19 Mogollón, Lima, Peru, South America.
Official Delegate of Peru.
Delegate—National Academy of Medicine.
Papers presented:
Trepanation of the Cranium and its Representation in the Pottery of Peru.
Artificial Deformation of the Cranium in Ancient Peru.
Variations in the Lamda of the Craniums of the Ancient Peruvians.
The Middle Cerebral Fossa in Ancient Peruvian Craniums.

MORALES VILLAZÓN, NÉSTOR, Director of the National Institute of Bacteriology, La Paz, Bolivia, South America.
Papers presented:
A Study of the Mongoloid Mancha Sacra in La Paz.
Tuberculosis in Bolivia; its Etiology and Prophylaxis.
Typhoid in Bolivia.

MORANDI, LUIS, Director, Physical and Meteorological Institute, Montevideo, Uruguay, South America.
Treasurer, Cooperating Committee, Uruguay.
Paper presented: *Frequency, Amount, and Characteristics of Rainfall and Hailstorms at Villa Colón, Montevideo, from 1888 to 1914.*

MORATÓ, OCTAVIO, Montevideo, Uruguay, South America.
Paper presented: *Organization of the European Foreign Trade with Uruguay, with Special Reference to Manufactured Goods.*

MORE, C. T., United States Office of Markets and Rural Organization, Department of Agriculture, Washington, D. C.
Paper presented: *Uniform Grades and Standards Packages.*

MORENO, J., Buenos Aires, Argentina, South America.
Papers presented:
Winter Stations in Argentina.
Hemophilia.
Intensive Antipest Serum Cure.
(Nine reprints.)

MORENO, JULIO E., Assistant Secretary of Public Instruction, Quito, Ecuador, South America.
Secretary Cooperating Committee, Ecuador.

MORGAN, H. A., Dean, Department of Agriculture, University of Tennessee, Knoxville, Tenn.
Alternate Southern Conference for Education and Industry.

MORGAN, JAMES DUDLEY, 919 Fifteenth Street NW., Washington, D. C.
Delegate—Columbia Historical Society.

MORLEY, SYLVANUS G., Carnegie Institution of Washington, Washington, D. C.
Member of Committee, Subsection 2, Section I.
Papers presented: *The Rise and Fall of the Maya Civilization in the Light of the Monuments and the Native Chronicles.*

MORRIS, ROBERT T., 616 Madison Avenue, New York, N. Y.
Delegate—American Therapeutic Society.

MOSCOSO, ALFONSO, Professor, National Institute "Mejía," Quito, Ecuador, South America.
Member Cooperating Committee, Ecuador.

MOSES, BERNARD, University of California, Berkeley, Cal.
Delegate—American Historical Association.

MOSQUERA NARVÁEZ, ALEJANDRO, Professor, Central University of Quito, Quito, Ecuador, South America.
Member Cooperating Committee, Ecuador.

MOULTON, SETH A., Chamber of Commerce, Portland, Me.
Alternate—Chamber of Commerce of Portland.

MUHM, TEODORO, Professor, University of Chile, Santiago, Chile, South America.
Official Delegate of Chile.
Delegate—University of Chile.
Papers presented:
Medical Education.
Respiratory Action of the Depressor Cordis.

MULLER, RICARDO, Professor of the Faculty of Sciences, Central University of Quito, Quito, Ecuador, South America.
Member Cooperating Committee, Ecuador.

MUMFORD, H. W., University of Illinois, Urbana, Ill.
Member of Committee, Subsection 5, Section III.

MUÑOZ ORIBE, RODRIGO, Professor, University of Montevideo, Montevideo, Uruguay, South America.
Paper presented: *The Teaching of Mathematics in the Public Schools.*

MUÑOZ XIMÉNEZ, RAFAEL, Montevideo, Uruguay, South America.
Member Cooperating Committee, Uruguay.
Paper presented: *Are Uniform Regulations Feasible Among the Different American Countries for the Prevention of the Introduction and Dissemination of the Diseases of Different Animals?*

MUNROE, CHARLES E., Dean, George Washington University, Washington, D. C.
Alternate—George Washington University.
Chairman of Subsection 4, Section VII.
Member of Committee, Subsection 7, Section IV.
Papers presented:
The Storage and Handling of Explosives in Mines.
Explosives for Use in Industrial and Commercial Developments.

MUNSON, Lieut. Col. E. L., Medical Department United States Army, The Toronto, Washington, D. C.
Paper presented: *Medical Preparedness in Campaign.*

MURLIN, LEMUEL H., President, Boston University, Boston, Mass.
Alternate—Boston University.

MURPHY, JAMES B., Rockefeller Institute, Sixty-sixth Street and Avenue A, New York, N. Y.
Alternate—Rockefeller Institute for Medical Research.
Paper presented: *Factors in Immunity to Cancer.*

MURRAY, NAT C., Bureau of Crop Estimates, Department of Agriculture, Washington, D. C.
Delegate—Bureau of Crop Estimates, Department of Agriculture.

MURRILL, WILLIAM ALPHONSO, New York Botanical Garden, New York, N. Y.
Delegate—New York Botanical Garden.

MYERS, BARTON, Norfolk Chamber of Commerce, Norfolk, Va.
Delegate—Norfolk Chamber of Commerce.

MYERS, CLARENCE GATES, Swarthmore College, Swarthmore, Pa.
Delegate—Swarthmore College.

NARANCIO, ATILIO, Montevideo, Uruguay, South America.
Papers presented:
Care of the Baby.
Repression of Alcoholism.

NARVÁEZ, CARLOS, Bogota, Colombia, South America.
Paper presented: *Sanitary Engineering in Bogota.*

NASMYTH, GEORGE W., Boston, Mass.
Delegate Federation of International Polity Clubs.

NAVARRO, ALFREDO, Montevideo, Uruguay, South America.
Member Cooperating Committee, Uruguay.

NAVARRO, JOSÉ GABRIEL, Director, National School of Fine Arts, Quito, Ecuador, South America.
Member Cooperating Committee, Ecuador.
Paper presented: *The Fine Arts in the Public Instruction in America.*

NEGRI, GALDINO, La Plata, Argentina, South America.
Paper presented: *Determination of the Thickness of the Earth's Crust.*

NELSON, AVON, Professor, University of Wyoming, Laramie, Wyo.
Delegate—University of Wyoming.

NELSON, ENRIQUE, Professor, University of La Plata, La Plata, Argentina, South America.
Delegate—Argentine Social Museum.

NELSON, Mrs. ERNESTINA A. LÓPEZ DE, 1696 Medrano, Buenos Aires, Argentina, South America.
Paper presented: *Pan Americanism and Education.*

NELSON, ERNESTO, National Inspector of Higher Education, 1696 Medrano, Buenos Aires, Argentina, South America.
Delegate—Social Museum of Argentina.
Paper presented: *What Should Be the Primary and What the Secondary Purpose of High-School Education?*

NELSON, E. W., United States Department of Agriculture, Washington, D. C.
Delegate—
Bureau of Biological Survey, Department of Agriculture.

NESBIT, CHARLES F., Superintendent of Insurance, District Building, Washington, D. C.
Alternate—National Fire Protection Association.

NEWCOMER, HENRY C., 735 Southern Building, Washington, D. C.
Delegate—Board of Engineers for Rivers and Harbors.

NEWELL, F. H., Professor, University of Illinois, Urbana, Ill.
Paper presented: *Irrigation and Drainage.*

NEWTON, JAMES T., First Assistant Commissioner of Patents, Department of the Interior, Washington, D. C.
Alternate—Patent Office.
Paper presented: *A Plea for the Ratification of the Buenos Aires Trade-Mark Convention of August 20, 1910.*

NICHOLS, F. G., Department of Education, Rochester, N. Y.
Paper presented: *How to Procure Adequately Prepared Instructors for Courses on Commerce in Elementary Schools.*

NICHOLS, J. B., 1321 Rhode Island Avenue NW., Washington, D. C.
Delegate—Medical Society of the District of Columbia.

NIPHER, FRANCIS E., Professor, Washington University, St. Louis, Mo.
Delegate—Washington University.

NIXON, LEWIS, 22 East Thirty-third Street, New York, N. Y.
Paper presented: *Merchant Marine.*

NOCEDO, CARLOS, Guatemala City, Guatemala, Central America.
Paper presented: *New Parasites of the Schilocerca Peregrina.*

NOLEN, JOHN, Landscape Architect, Harvard Square, Cambridge, Mass.
Paper presented: *The Effect of Land Subdivision.*

NOROÑA, GABRIEL, Professor of the Faculty of Sciences, Central University of Quito, Quito, Ecuador, South America.
Member Cooperating Committee, Ecuador.

NORRIS, H. V., Wilkes-Barre, Pa.
Paper presented: *Extent to Which Practicing Engineers May Take Part in Engineering Teaching.*

NORTH, S. N. D., Assistant Secretary, Carnegie Endowment for International Peace, Washington, D. C.
Chairman of Subsection 2, Section IX.

NORTON, J. B. S., Professor, Maryland Agricultural Experiment Station, College Park, Md.
Delegate—Maryland Agricultural College.

NORTON, THOMAS H., Department of Commerce, Washington, D. C.
Paper presented: *Tanning Materials from Native Sources in Latin-American Countries.*

OCTAVIO, RODRIGO, 38 Rua Palmeiras, Rio de Janeiro, Brazil, South America.

Delegate

Brazilian Academy.
Lawyers' Institute.
Institute of Geography and History.
Brazilian Society of International Law.
Engineers' Club.
Faculty of Legal and Social Sciences of Rio de Janeiro.

Honorary Member.

Paper presented: *Should International Law Be Codified? And if so, Should It Be Done Through Governmental Agencies or by Private Scientific Institutions?*

O'DONNELL, I. D., Supervisor of Irrigation, Department of the Interior, Billings, Mont.

Member of Committee, Subsection 4, Section III.

Paper presented: *What Should Be Done for the Settler.*

ODRIOZOLA, ERNESTO, Lima, Peru, South America.

Member, Cooperating Committee, Peru.

O'HARA, FRANK, Catholic University of America, Washington, D. C.

Delegate—Catholic University of America.

O'HARRA, CLEOPHAS C., President, South Dakota State School of Mines, Rapid City, S. Dak.

Delegate—South Dakota State School of Mines.

OJEDA, RAMÓN, Member of the Bar, Quito, Ecuador, South America.

Member Cooperating Committee, Ecuador.

OLIVEIRA, PEDRO, Calle Belén, 1071, Lima, Peru, South America.

Member Cooperating Committee, Peru.

OLIVEIRA BOTELHO, JOAQUIN DE, 1619 Columbia Road, Washington, D. C.

Delegate—

National Academy of Medicine, Rio de Janeiro.
Geographical Society of Rio de Janeiro.
Red Cross Society of Brazil.

Papers presented:

Education, Climate, Mineral and Agricultural Resources, Commerce, Finance, and Charitable Institutions of Guatemala.

Climate and Hygiene of Rio de Janeiro.

The Treatment of Tuberculosis by the Operation of Artificial Pneumothorax.

OLIVEIRA LIMA, MANOEL, former Envoy Extraordinary and Minister Plenipotentiary from Brazil, 15 Wetherby Gardens, South Kensington, S. W., London, England.
Official Delegate of State of Sao Paulo, Brazil.
Delegate—
Brazilian Academy of Letters.
Academy of Science, Art, and Letters.
Institute of Archæology and Geography of Pernambuco.
Brazilian Society of International Law.
Historical and Geographical Institute of Brazil.
Honorary Member.
Paper presented: *Exchange of Professors and Students Among the Universities of the American Countries.*

OLIVER, JAIME N., Professor of the Faculty of Medicine, University of Montevideo, Montevideo, Uruguay, South America.
Vice President Cooperating Committee, Uruguay.

OLIVER, JAMES H., United States Navy Department, Washington, D. C.
Member of Committee, Subsection 1, Section VI.

OLMSTED, FREDERICK L., Architect, Brookline, Mass.
Paper presented: *Town and City Planning.*

OLSEN, J. C., Cooper Union, New York, N. Y.
Alternate—American Institute of Chemical Engineers.

ORAMAS, LUIS R., Caracas, Venezuela, South America.
Paper presented: *Notes on the Archæology of Venezuela.*

OREAMUNO, J. RAFAEL, Secretary, Costa Rica Legation, 1501 Sixteenth Street, Washington, D. C.
Delegate—Central American Court of Justice.

ORTON, W. A., Bureau of Plant Industry, Agricultural Department, Washington, D. C.
Delegate—American Phytopathological Society.

OSBORN, A. E., 233 Broadway, New York, N. Y.
Alternate—American Manufacturers' Export Association.

OSBORNE, N. S., Bureau of Standards, Washington, D. C.
Delegate—Michigan College of Mines.

OSGOOD, W. H., Field Museum of Natural History, Chicago, Ill.
Alternate—Field Museum of Natural History.

OSPINA, TULIO, Director, School of Mines of Medellin, Bogota, Colombia.
Official Delegate of Colombia.
Delegate—
National Historical Academy.
University of Antioquia.
University of Cauca.
Paper presented: *General and Economic Geology of Colombia.*

OTERO, LUIS ALFREDO, Bogota, Colombia, South America.
Paper presented: *Are There Specific American Problems of International Law?*

OUSLEY, Col. CLARENCE, Director of Extension, Agricultural and Mechanical College of Texas, College Station, Tex.
Delegate—Agricultural and Mechanical College of Texas.

OWENS, CLARENCE J., Managing Director, Southern Commercial Congress, Southern Building, Washington, D. C.
Delegate—Southern Commercial Congress.

OWENS, R. B., Secretary, Franklin Institute, Philadelphia, Pa.
Delegate—Franklin Institute.

OYARZÚN, AURELIANO, Santiago, Chile, South America.
Paper presented: *Paleolithic Station of Taltal.*

PADGETT, WILLIAM, Assistant Superintendent, United States Botanical Gardens, Washington, D. C.
Alternate—United States Botanical Gardens.

PADILLA, ALBERTO, Guatemala City, Guatemala, Central America.
Paper presented: *The Locust and its Destruction.*

PAES LEME, LUIS BETIM, Director, South American Fuel Company, 115 Avenida de Ligação, Rio de Janeiro, Brazil, South America.
Delegate—
Engineers' Club of Rio de Janeiro.
National Museum.
Papers presented:
The White Coal of Brazil and its Application.
Radio Active Minerals of Brazil.

PAGE, LOGAN WALLER, Director, United States Office of Public Roads and Rural Engineering, Department of Agriculture, Washington, D. C.
Delegate—
Office of Public Roads and Rural Engineering.
American Highway Association.
Alternate Chairman, Subsection 1, Section V.
Member of Committee, Section V.
Paper presented: *Scientific Work of the United States Office of Public Roads.*

PAGE, WILLIAM H., Professor of Law, Ohio State University, Columbus, Ohio.
Paper presented: *The Extraterritorial Effect of Criminal Statutes.*

PALMER, THOMAS W., Jr., 1324 Brown-Marx Building, Birmingham, Ala.
Paper presented: *A Study in Mexican Law.*

PAREDES, RIGOBERTO, La Paz, Bolivia, South America.
Paper presented: *Study of the Prehistorical Man of the High Plateaus of Bolivia.*

PARKER, ARTHUR C., Museum of the State of New York, Education Building, Albany, N. Y.
Member of Committee, Subsection 2, Section I.

PARKER, A. WARNER, Bureau of Immigration, Department of Labor, Washington, D. C.
Alternate—Bureau of Immigration.

PARKER, EDWARD W., Wilkes-Barre, Pa.
Member of Committee, Subsection 1, Section VII.
Paper presented: *Uniformity in Collection of Statistics of Mineral Production.*

PARKER, EDWIN W., Engineer, 29 West Thirty-ninth Street, New York, N. Y.
Delegate—American Institute of Mining Engineers.

PARKER, MARY E., Western Reserve University, Cleveland, Ohio.
Member of Committee, Subsection 4, Section IV.

PARKHURST, R. W., Chamber of Commerce Building, Cleveland, Ohio.
Alternate—Cleveland Engineering Society.

PARKINSON, THOMAS I., Professor, Columbia University, New York City.
Paper presented: *Presidential and Parliamentary Government on the American Continent in State and Nation.*

PARLIN, CHARLES G., Manager, Division of Commercial Research, Curtis Publishing Company, Boston, Mass.
Paper presented: *Modern Retail Merchandising.*

PARRY, WILL H., Federal Trade Commission, Washington, D. C.
Alternate—Federal Trade Commission.

PARSONS, ARCHIBALD L., Navy Department, Washington, D. C.
Delegate—Bureau Yards and Docks, Navy Department.

PARSONS, CHARLES L., Chief Mineral Technologist, United States Bureau of Mines, Washington, D. C.
Delegate—American Chemical Society.
Paper presented: *The Occurrence and Preparation of Radium and Associated Metals.*

PARSONS, H. DE B., 22 William Street, New York, N. Y.
Delegate—Chamber of Commerce of State of New York.
Paper presented: *Sewers and Sewage Disposal.*

PASTOR, JUAN N., Lieutenant, Argentine Navy, 135 Central Park W., New York, N. Y.
Delegate—Naval Center of Argentina.

PATCHIN, ROBERT H., Secretary National Foreign Trade Council, 64 Stone Street, New York, N. Y.
Delegate—National Foreign Trade Council.

PATTERSON, GUILLERMO, Assistant Secretary of State, Habana, Cuba.
Secretary Cooperating Committee, Cuba.

PAUL, J. W., United States Bureau of Mines, Department of the Interior, Pittsburgh, Pa.
Paper presented: *Mine Rescue Work.*

PAXTON, J. W., Office of Engineer Commissioner, Municipal Building, Washington, D. C.
Papers presented:
Street Cleaning and Disposal of Refuse.
Disposal of Refuse.

PAYNE, BRUCE R., President George Peabody College for Teachers, Nashville, Tenn.
Delegate—George Peabody College for Teachers.
Member of Committee, Subsection 2, Section IV.

PAYNE, CHARLES E., Professor, Grinnell College, Grinnell, Iowa.
Delegate—Grinnell College.

PEABODY CHARLES, Peabody Museum, Cambridge, Mass.
Delegate—
Peabody Museum of Harvard.
American Anthropological Association.
Alternate—American Folk Lore Society.
Paper presented: *Exploration in the Ozark Mountains of Missouri.*

PEARL, RAYMOND, University of Maine, Orono, Me.
Delegate—
American Association of Instructors and Investigators in Poultry Husbandry.

PEARSON, RAYMOND A., President Iowa State College of Agriculture, Ames, Iowa.
Delegate—Iowa State College.
Secretary of Section III.
Member of Committee, Subsection 8, Section IV.

PEAVEY, LEROY D., Vice President Babson Statistical Organization, Wellesley Hills, Mass.
Alternate—Babson Statistical Organization.

PECK, PAUL F., Professor, Grinnell, Iowa.
Alternate—Grinnell College.

PEIRCE, PAUL SKEELS, Professor, State University of Iowa, Iowa City, Iowa.
Delegate—State University of Iowa.

PEIRCE, W. F., President Kenyon College, Kenyon College, Gambier, Ohio.
Delegate—Kenyon College.

PENA, His Excellency CARLOS MARÍA DE, Envoy Extraordinary and Minister Plenipotentiary of Uruguay to the United States, Uruguayan Legation, 1734 N Street, Washington, D. C.
Chairman of the Official Delegation of Uruguay.
Delegate—
University of Montevideo.
Atheneum of Uruguay.
Division of Public Instruction.
National Historical Museum.
Address before First General Session of Section IV on *Education.*

PENAGOS, ARCESIO, Popayan, Colombia, South America.
Paper presented: *Attitude of Colombia Toward International Arbitration and the Peaceful Settlement of International Disputes.*

PEÑAHERRERA, MARIANO, Dean, Faculty of Medicine, Central University of Quito, Quito, Ecuador, South America.
Member Cooperating Committee, Ecuador.

PEÑAHERRERA, RAFAEL, Quito, Ecuador, South America.
Secretary of the Official Delegation of Ecuador.

PEÑAHERRERA, VÍCTOR MANUEL, Professor, Central University of Quito, Quito, Ecuador, South America.
Official Delegate of Ecuador.
Delegate—Central University of Quito.
Member Cooperating Committee, Ecuador.
Paper presented: *A Study of the Jury System of Ecuador.*

PENFIELD, WALTER S., Colorado Building, Washington, D. C.
Secretary of the Official Delegation of the United States.
Member of Committee, Subsection 1, Section VI.
Paper presented: *The Attitude of American Countries Toward International Arbitration and the Peaceful Settlement of International Disputes.*

PENNYBACKER, J. E., Chief Division of Road Economics, Office of Public Roads and Rural Engineering, Department of Agriculture, Washington, D. C.
Paper presented: *Public Roads in the United States.*

PENNYBACKER, Mrs. PERCY V., 2606 Whitis Avenue, Austin, Tex.
Delegate—General Federation of Women's Clubs.

PEPPER, GEORGE H., Museum of the American Indian, 10 East Thirty-third Street, New York City, N. Y.
Alternate—Museum of the American Indian, Heye Foundation.

PEREIRA DA SILVA, G. CLODOMIRO, Technical Counselor to the Ministry of Agriculture, State of Sao Paulo, Brazil, South America.
Papers presented:
Laws Governing Running Water and Waterfalls.
Sewers and Sewage Disposal.
Mountain Railroad Transportation.
Uniform Gauge for Railways in Central and South America.

PÉREZ, ABEL J., National Inspector of Primary Instruction, Montevideo, Uruguay, South America.
Member Cooperating Committee, Uruguay.
Papers presented:
Some Ideas on Fresh Orientations in Education.
Bases for a Public School Law.

PÉREZ, JUAN F., Secretary of Public Instruction of Paraguay, Asuncion, Paraguay.
Delegate—Paraguayan Institute.
Honorary Member.
Papers presented:
Paraguay and America.
Public Instruction in Paraguay.

PÉREZ PERDOMO, His Excellency ARMANDO, Envoy Extraordinary and Minister Plenipotentiary from the Dominican Republic to the United States, The Champlain, Washington, D. C.
Chairman of the Official Delegation of the Dominican Republic.

PÉREZ-VERDÍA, BENITO JAVIER, Attorney at Law, Pan American Union, Washington, D. C.
Paper presented: *The Attitude of American Countries Toward International Arbitration and the Peaceful Settlement of International Disputes.*

PÉREZ Q, Carlos, Quito, Ecuador, South America.
Member Cooperating Committee, Ecuador.

PERKINS, HENRY AUGUSTUS, Trinity College, Hartford, Conn.
Delegate—Trinity College.

PERKINS, H. C., 1701 Connecticut Avenue, Washington, D. C.
Member of Committee, Subsection 1, Section VII.

PERRINE, C. D., Director Astronomical Observatory of Argentina, Cordoba, Argentina, South America.
Paper presented: *Some Indications of Spiral Motion in Our Stellar System.*

PÉRSICO, ALFREDO, Professor, University of Montevideo, Calle San Jose, 908, Montevideo, Uruguay, South America.
Official Delegate of Uruguay.
Paper presented: *Sexual Education of Young Men as a Prophylactic Measure Against Venereal Diseases.*

PESTANA, TIBURTINO MONDIM, Sao Paulo, Brazil, South America.
Paper presented: *Synthetic Report on Education in the State of Sao Paulo.*

PETERS, ANDREW J., Assistant Secretary of the Treasury, Treasury Department, Washington, D. C.
Honorary Member.
Remarks before Joint Session of Section IV and Section IX.

PETTUS, CHARLES P., 611 Security Building, St. Louis, Mo.
Delegate—Missouri Historical Society.

PEYNADO, FRANCISCO J., Attorney at Law, 225 West Thirty-ninth Street, New York City.
Official Delegate of the Dominican Republic.

PEZET, His Excellency FEDERICO ALFONSO, Envoy Extraordinary and Minister Plenipotentiary of Peru to the United States, Peruvian Legation, 2223 R Street, Washington, D. C.
Official Delegate of Peru.
Delegate—University of Cuzco.
Papers presented:
Notes on the Folklore of the Peruvian Indians.
The Relation of Mining to the Pan American Countries, with Special Reference to the Mineral Resources of Peru.

PFEIFFER, J. A., Government Hospital for the Insane, Department of the Interior, Washington, D. C.
Alternate—Government Hospital for the Insane, Department of the Interior.

PHALEN, W. C., Geologist, United States Geological Survey, Department of the Interior, Washington, D. C.
Member of Committee, Subsection 1, Section III.
Paper presented: *Conservation of Phosphate Rock in the United States.*

PHILIPPI, JULIO, Professor, University of Chile, Santiago, Chile, South America.
Vice Chairman of the Official Delegation of Chile.
Delegate—
University of Chile.
Permanent Local Government Commission.
National Educational Association.
Paper presented: *History of the Local and Fiscal Finances of Chile.*

PHILLIPS, H. C., 3531 Thirty-sixth Street, Washington, D. C.
Delegate—Lake Mohonk Conference of Friends of the Indians and Other Dependent Peoples.

PHILLIPS, WILLIAM, Third Assistant Secretary of State, Department of State, Washington, D. C.
Official Delegate of the United States.
Chairman Ex Officio of the Executive Committee.

PIAGGIO, NICOLÁS H., Montevideo, Uruguay, South America.
Paper presented: *Resolutions of Geodetic Triangulations and Cadastral Surveys.*

PILLSBURY, CHARLES L., Warner Building, Minneapolis, Minn.
Delegate—Minneapolis Engineers' Club.

PINCHOT, GIFFORD, Milford, Pike County, Pa.
Delegate—National Conservation Association.

PIÑOL BATRES, RAFAEL, Guatemala City, Guatemala, Central America.
Paper presented: *The Conservation of Industrial Plants.*

PINOL, FRANCISCO, University of Pittsburgh, Pittsburgh, Pa.
Delegate—University of Pittsburgh.

PINTO, EDUARDO, San José, Costa Rica, Central America.
Chairman of the Official Delegation, Costa Rica.
Honorary Member.

PINZÓN, PAULO, Civil Engineer, Bogota, Colombia, South America.
Paper presented: *Engineering in General in Colombia.*

PIPER, C. V., Department of Agriculture, Washington, D. C.
Delegate—Washington State Agricultural College.

PITNEY, MAHLON, Associate Justice, Supreme Court of the United States, Washington, D. C.
Member of Committee, Subsection 2, Section VI.

PLEHN, CARL C., University of California, Berkeley, Cal.
Member of Committee, Subsections 3 and 4, Section IX.

PLUNKETT, CHARLES T., President, Berkshire Cotton Manufacturers' Association, 8 Park Street, Adams, Mass.
Delegate—
National Association of Cotton Manufacturers.
American Society of Mechanical Engineers.
Member of Committee, Section V.
Alternate Chairman, Subsection 5, Section V.

POE, CLARENCE, Editor, The Progressive Farmer, Raleigh, N. C.
Member of Committee, Subsection 7, Section III.

POLLOCK, CLARENCE D., Park Row Building, New York, N. Y.
Delegate—Brooklyn Engineers' Club.

POLLOCK, Commander EDWIN T., Navy Department, Washington. D. C.
Alternate—Naval Observatory of the Navy Department.

PONCE, CLEMENTE, Member of the Bar, Quito, Ecuador, South America.
Member Cooperating Committee, Ecuador.

POPE, ALVIN S., 1022 Aeolian Building, New York, N. Y.
Delegate—Panama-Pacific International Exposition.
Paper presented: *Education and Social Economy Contributions of the Panama-Pacific International Exposition to Pan American Interests.*

POPE, GEORGE S., Bureau of Mines, Interior Department, Washington, D. C.
Paper presented: *Standard Methods for Analyzing Coal and Coke.*

POPENOE, PAUL, Editor, Journal of Heredity, 511 Eleventh Street, Washington, D. C.
Delegate—American Genetic Association.
Paper presented: *One Aspect of Recent Evolution in Man.*

PORCHAT, REYNALDO, Sao Paulo, Brazil, South America.
Papers presented:
Cattle Raising and the Meat Industry in Southern Brazil.
Sociology and Law—The Convenience of a Course of Sociology in the Study of Law.
To What Extent is an Exchange of Students and Professors between American Republics Desirable? What is the Most Effective Basis for a System of Exchange? What Plans Should be Adopted in Order to Secure Mutual Recognition of Technical and Professional Degrees by American Republics?

POSNANSKY, ARTHUR, La Paz, Bolivia, South America.
Papers presented:
Mongoloid Signs in Some of the Ethnical Types of the Andine Plateau.
Renaissance of a New American Prehistorical Style.

POTTER, A. F., Associate Forester, Forest Service, Department of Agriculture, Washington, D. C.
Delegate—Forest Service.
Member of Committee, Subsection 2, Section III.
Paper presented: *Government Control of Grazing on the Public Lands.*

POTTER, ALEXANDER, 50 Church Street, New York, N. Y.
Delegate—Ohio Engineering Society.

POWELL, G. HAROLD, Manager California Fruit Growers' Exchange, Los Angeles, Cal
Member of Committee, Subsection 7, Section III.
Paper presented: *The Principles and Practices of Cooperation Applied to Citrus Production and Distribution.*

POWELL, T. F., United States Office of Markets and Rural Organization, Department of Agriculture, Washington, D. C.
Paper presented: *Opportunities Afforded the Railroads of the United States for Profitable Agricultural Development Work.*

PRAEGER, OTTO, Second Assistant Postmaster General, Post Office Department, Washington, D. C.
Delegate—Postmaster General's Office.

PRATT, E. E., Chief Bureau of Foreign and Domestic Commerce, Department of Commerce, Washington, D. C.
Delegate—Bureau of Foreign and Domestic Commerce, Department of Commerce.

PRATT, E. W., Chicago & North Western Railway, Chicago, Ill.
Alternate—American Railway Master Mechanics' Association.

PRATT, JOSEPH HYDE, Chapel Hill, N. C.
Alternate—National Drainage Congress.

PROSSER, CHARLES A., Director Dunwoody Industrial Institute, Minneapolis, Minn.
Member of Committee, Subsection 9, Section IV.

PROUTY, C. A., Director Division of Valuation, Interstate Commerce Commission, Washington, D. C.
Paper presented: *The Relation of Central to Local Control in the Regulation of Public Utilities.*

PRUDDEN, T. MITCHELL, American Ethnological Society, New York City, N. Y.
Member of Committee, Subsection 2, Section I.

PUCH, Miss JEANNE, San Salvador, Salvador, Central America.
Paper presented: *To What Extent Should Elementary Education be Supported by Local Taxation and to What Extent by State Taxation? What Should be the Determining Factors in the Distribution of Support?*

PURDY, LAWSON, Chairman Board of Taxation and Assessments, New York City, N. Y.
Member of Committee, Subsection 4, Section IX.
Paper presented: *The Assessment of Real Estate.*

PUTNAM, EDWARD K., Davenport Academy of Sciences, Davenport, Iowa.
Delegate—Davenport Academy of Sciences.

PUTNAM, ELIZABETH DUNCAN, Davenport Academy of Sciences, Davenport, Iowa.
Member of Committee, Subsection 1, Section I.

PUTNAM, GEORGE R., Commissioner Bureau of Lighthouses, Department of Commerce, Washington, D. C.
Delegate Washington Society of Engineers.
Member of Committee, Section V.
Papers presented:
Organization of Technical Work of the United States Lighthouse Service.
Lighthouses, Light Vessels, Fog Signals, and Buoys.

PUTNAM, HELEN, Providence, R. I.
Paper presented: *Well-being of Children as Determined by the Education of Women.*

PUTNAM, HERBERT, Librarian of Congress, Library of Congress, Washington, D. C.
Delegate—American Library Association.

QUESADA, ERNESTO, Professor, La Plata University, Libertad 948, Buenos Aires, Argentina.
Chairman of the Official Delegation of Argentina.
Delegate—
National University of Cordoba.
Faculty of Philosophy and Literature of the National University of Buenos Aires.
Board of American History and Numismatics.
Faculty of Legal and Social Sciences, National University of La Plata.

QUINCY, C. F., 90 West Street, New York City, N. Y.
Delegate—American Forestry Association.

QUINTELA, MANUEL, Montevideo, Uruguay, South America.
Member Cooperating Committee, Uruguay.

RADOSAVLJEWICH, PAUL R., Assistant Professor, New York University, New York, N. Y.
Papers presented:
Pedagogical Anthropology in the United States.
The European and the American Child.

RALSTON, JACKSON H., 108 South La Salle Street, Chicago, Ill.
Alternate—Commercial Law League of America.
Paper presented: *The Attitude of American Countries Toward International Arbitration and the Peaceful Settlement of International Disputes.*

RAMÍREZ FONTECHA, ANTONIO, Tegucigalpa, Honduras, Central America.
Honorary Member.
Papers presented:
Geographical and Statistical Notice of the Republic of Honduras.
The Republic of Honduras, Its Means of Communication, Commerce, Present and Prospective Industrial and Economic Development.

RAMÍREZ GASTÓN, ENRIQUE, Lima, Peru, South America.
Paper presented: *Public Finance and Credit in Peru.*

RAMOS MONTERO, ALFREDO, Montevideo, Uruguay, South America.
Member Cooperating Committee, Uruguay.

RAMPINI, J. A., Montevideo, Uruguay, South America.
Paper presented: *Asthma.*

RANDOLPH, B. M., George Washington University, Washington, D. C.
Member of Committee, Subsection 7, Section IV.
Paper presented: *Medical Education in the United States.*

RANKIN, W. S., Secretary of the State Board of Health, Raleigh, N. C.
Delegate—North Carolina State Board of Health.
Paper presented: *The Influence of Vital Statistics upon the Conservation of Human Life.*

RANSDELL, R. C., Bureau of Medicine and Surgery, Navy Department, Washington, D. C.
Alternate—United States Navy Department.

RANSOM, B. H., Bureau of Animal Industry, Department of Agriculture, Washington, D. C.
Member of Committee, Subsection 5, Section III.
Paper presented: *Recent Progress in the Development of Methods for the Control and Treatment of Parasites of Live Stock.*

RAPER, CHARLES LEE, Dean, University of North Carolina, Chapel Hill, N. C.
Alternate—University of North Carolina.
Paper presented: *The Teaching of Banking and Finance in the Collegiate Course of Study for Business, Domestic and Foreign.*

RASMUSSEN, FRED., Professor, New Hampshire College, Durham, N. H.
Delegate—New Hampshire College.

RATHJENS, GEORGE W., President, Association Engineering Societies, St. Paul, Minn.
Delegate—Association Engineering Societies.

RAUTENSTRAUCH, WALTER, Professor, Columbia University, New York, N. Y.
Paper presented: *What is Engineering Education Contributing Toward Scientific Progress and Inventions?*

RAVANEL, M. P., University of Missouri, Columbia, Mo.
Paper presented: *Present Views in Respect to Modes and Periods of Infection in Tuberculosis.*

RAWL, B. H., Bureau of Animal Industry, Department of Agriculture, Washington, D. C.
Delegate—Bureau of Animal Industry, Department of Agriculture. Official Dairy Instructors' Association.
Member of Committee, Subsection 5, Section III.
Paper presented: *The Rôle of the Dairy Industry in a System of National Agricultural Development.*

RAYMOND, R. W., Secretary Emeritus, American Institute of Mining and Engineering, 29 West Thirty-ninth Street, New York, N. Y.
Honorary Member.
Paper presented: *The Value of Technical Societies to Mining Engineers.*

RAZETTI, LUIS, Caracas, Venezuela, South America.
Member Cooperating Committee, Venezuela.

REA, PAUL M., Secretary, American Association of Museums, Charleston, S. C.
Delegate—American Association of Museums.

READ, T. T., Keddie, Cal.
Paper presented: *The Influence of Technical Journals Upon Engineering Education.*

REBAY, HÉCTOR, Buenos Aires, Argentina, South America.
Paper presented: *Vacunoterapia de la Conjuntivitis Granulosa.*

REBER, LOUIS E., Dean, Extension Division, University of Wisconsin, Madison, Wis.
Delegate—
University of Wisconsin.
Wisconsin State Board of Industrial Education.

RECINOS, ADRIÁN, Assistant Secretary of Foreign Affairs, Guatemala City, Guatemala, Central America.
Official Delegate, Guatemala.
Delegate—
Faculty of Law and Notarial Practice.
Institute and Central Normal School for Girls.
National Central Institute for Boys.
Papers presented:
Indian Languages of Guatemala.
The Desirability of Uniform Laws Throughout the Pan American Countries for the Protection of Antiquities, the Systematic Promotion of Anthropological Research, and the Collection and Scientific Treatment of Museum Materials.

REDFIELD, Hon. WILLIAM C., Secretary of Commerce, Washington, D. C.
Delegate—National Society for the Promotion of Industrial Education.
Remarks before Joint Session of Section IV and Section IX.

REED, WILLIAM GARDNER, Office of Farm Management, Department of Agriculture, Washington, D. C.
Paper presented: *Frost in the United States.*

REED, W. M., Chief Engineer United States Indian Office, Department of the Interior, Washington, D. C.
Paper presented: *The Irrigation Work of the Indian Office.*

REEDER, D. F., Ancon, Panama, Canal Zone.
Paper presented: *Sanitary Work on the Panama Canal.*

REESE, CHARLES L., Du Pont de Nemours & Company, Wilmington, Del.
Delegate—Wilmington Chamber of Commerce.

REEVES, JESSE S., Professor, University of Michigan, Ann Arbor, Mich.
Delegate—University of Michigan.
Paper presented: *The Teaching of Government in the Collegiate Course of Study for Business, Domestic and Foreign.*

REHN, JAMES A. G., Corresponding Secretary American Entomological Society, Logan Square, Philadelphia, Pa.
Delegate—American Entomological Society.

REICHMAN, ALBERT, 1735 Monadnock Block, Chicago, Ill.
Delegate—Western Society of Engineers.

REINOSO, JUAN JOSÉ, Lima, Peru, South America.
Paper presented: *Is It Desirable and Possible to Establish Uniform Rates, Methods, and Classifications between the North, Central, and South American Countries?*

RENSON, CARLOS, Professor, San Salvador, Salvador, Central America.
Paper presented: *Toxicological Analyses of Mercury.*

RESTRELLI, ERNESTO, Buenos Aires, Argentina, South America.
Paper presented: *The Drago Doctrine—Its Importance in American International Law.*

REYES GUERRA, ALONSO, Member of the Permanent Court of Arbitration of The Hague, San Salvador, Salvador, Central America.
Honorary Member.
Paper presented: *Should International Law be Codified? And if so, Should It be Done Through Governmental Agencies or by Private Scientific Societies?*

REYNOLDS, JAMES B., 105 West Fortieth Street, New York City, N. Y.
Alternate—American Social Hygiene Association.
Paper presented: *International Agreements in Relation to the Suppression of Vice.*

RIBAS, E. Sao Paulo, Brazil, South America.
Paper presented: *Eradication of Yellow Fever from the State of Sao Paulo.*

RICARDONI, AMÉRICO, Montevideo, Uruguay, South America.
Member Cooperating Committee, Uruguay.

RICE, CALVIN W., Secretary American Society of Mechanical Engineers, 29 West Thirty-ninth Street, New York City, N. Y.
Delegate—American Society of Mechanical Engineers.
Secretary of Subsection on Mechanical Engineering, Section V.

RICE, GEORGE S., Chief Mining Engineer United States Bureau of Mines, Department of Interior, Washington, D. C.
Member of Committee, Subsection 1, Section VII.
Paper presented: *Mining Costs and Selling Prices of Coal in the United States and Europe with Special Reference to Export Trade.*

RICE, JAMES E., Professor, Cornell University, Ithaca, N. Y.
Delegate—American Association Instructors and Investigators in Poultry Husbandry.

RICE, WILLIAM NORTH, Professor, Middletown, Conn.
Delegate—Wesleyan University.

RICHARDS, JOSEPH W., Professor of Metallurgy, Lehigh University, South Bethlehem, Pa.
Paper presented: *The Electric Furnace in Metallurgy.*

RICHARDS, R. C., 226 West Jackson Street, Chicago, Ill.
Paper presented: *The Safety-first Movement in American Railways.*

RICHARDS, R. H., Mining Engineer, 491 Boylston Street, Boston, Mass.
Member of Committee, Subsection 2, Section VII.
Paper presented: *Ore Dressing.*

RICHARDSON, CHARLES W., 1317 Connecticut Avenue, Washington, D. C.
Delegate—American Climatological and Clinical Association.

RICHMOND, C. A., Schenectady, N. Y.
Delegate—
Union College.
Association of Colleges and Preparatory Schools of the Middle States and Maryland.

RICKARD, T. A., Editor Mining and Scientific Press, San Francisco, Cal.
Paper presented: *The Influence of Technical Journals Upon Engineering Education.*

RICKER, Mrs. JEWETT, 6726 Sheridan Road, Chicago, Ill.
Alternate—National Federation of College Women.

RICKETTS, L. D., Mining and Metallurgical Engineer, New York, N. Y.
Member of Committee, Subsection 2, Section VII.
Paper presented: *Improved Mining and Metallurgical Methods as an Aid to Conservation.*

RIDSDALE, P. S., 1410 H Street NW., Washington, D. C.
Alternate—American Forestry Association.

RIGGS, ROBERT B., Professor, Department of Chemistry, Trinity College, Hartford, Conn.
Delegate—Trinity College.

RIGGS, WALTER M., President, Clemson Agricultural College, South Carolina.
Delegate—
Clemson Agricultural College.
Southern Conference for Education and Industry.

RIOS CARVALHO, ANTONIO DOS, Professor, Rio de Janeiro, Brazil, South America.
Paper Presented: *The Republican Dictatorship and the Brazilian Government.*

RÍOS, RAFAEL, 1 Broadway, New York, N. Y.
Delegate—Insular Chamber of Commerce, San Juan, Porto Rico.

RÍSQUEZ, FRANCISCO A., Secretary National Board of Instruction, Caracas, Venezuela.
Member Cooperating Committee, Venezuela.
Papers presented:
What Preparation Should be Required for Admission to Medical Schools? What Should be the Minimum Requirements for Graduation? What Portion of the Faculty of a Medical School Should be Required to Give All Their Time to Teaching and Investigation? What Instruction May Best be Given by Physicians Engaged in Medical Practice?
To What Extent is Coeducation Desirable in Elementary Schools, High Schools, Colleges, and Universities?

RITTMAN, W., Chemical Engineer, United States Bureau of Mines, Department of Interior, Pittsburgh, Pa.
Paper presented: *Rittman Process.*

RIVA ZUCHELLI, JUAN, Civil Engineer, Montevideo, Uruguay, South America.
Delegate—American International University Bureau.

RIVAS, DÁMASO, Nicaragua, University of Pennsylvania, Philadelphia, Pa.
Chairman of the Official Delegation of Nicaragua.
Papers presented:
Parasitic Diseases in the American Tropical Countries.
The Preparatory and College Education in the Latin American Colleges in Relation to the Studies in the Medical Schools of the United States of America.

RIVERA, MARCIAL I., Santiago, Chile, South America.
Paper presented: *Reorganization of the Medico-Legal Service in Chile.*

RIVERA MUÑOZ, LUIS, Resident Commissioner for Porto Rico, Washington, D. C.
Delegate—University of Porto Rico.

ROBB, ROBERT G., St. Stephens College, Annandale, Dutchess County, N. Y.
Delegate—St. Stephens College.

ROBERTS, GEORGE E., National City Bank, New York, N. Y.
Member of Committee, Subsection 3, Section IX.
Paper presented: *Effects of the War upon the Trade of South America.*

ROBERTS, J. B., American Academy of Medicine, 1101 Westinghouse Building, Pittsburgh, Pa.
Delegate—American Academy of Medicine.

ROBERTSON, C., Buenos Aires, Argentina, South America.
Paper presented: *The Septicity of Mouth and the Affection of the Nasopharynx.*

ROBERTSON, JOHN C., Professor, St. Stephens College, Annandale, Dutchess County, N. Y.
Alternate—St. Stephens College.

ROBINSON, CHARLES J., University of Louisville, Louisville, Ky.
Alternate—University of Louisville.

ROBINSON, JOHN A., President, Illinois State Board of Health, 30 North Michigan Avenue, Chicago, Ill.
Alternate—Illinois State Board of Health.

ROBLES, RODOLFO, Professor, Faculty of Guatemala, Guatemala City, Central America.
Honorary Member.
Paper presented: *A Scheme for Modern Education.*

RODRÍGUEZ BARROS, JAVIER, Professor in the Medical College, Santiago, Chile, South America.
Official Delegate of Chile.

RODRÍGUEZ, CRISTÓBAL, Panama City, Panama.
Member Cooperating Committee, Panama.

RODRÍGUEZ, JOSÉ SANTIAGO, Caracas, Venezuela, South America.
Member Cooperating Committee, Venezuela.

RODRÍGUEZ DA COSTA DORIA, JOSÉ, Ex-Governor of the State of Sergipe, Bahia, Brazil, South America.
Official Delegate State of Bahia.
Delegate—
School of Law, Bahia.
Historical and Geographical Institute.
Society of Forensic Medicine of Bahia.
Papers presented:
Maconha Smokers—Effects and Evils of the Habit.
An Essential Mistake of Person in the Law of Civil Marriage of Brazil.

RODRÍGUEZ LUNA, JUAN J., Guatemala City, Guatemala, Central America.

Papers presented:

Something About the Locust (Schitocerca Americana) and the Necessity of an International Convention to Promote its Destruction.

Catalogue of the Fish Pertaining to the Fauna of Guatemala.

RODRIGUEZ PIÑERES, EDUARDO, former President of the Colombian Academy of Jurisprudence, Bogota, Colombia, South America.

Official Delegate of Colombia.

Paper presented: *Relations Between the Judicial and Legislative Powers.*

ROGÉ, EDUARDO, Montevideo, Uruguay, South America.

Paper presented: *Between What Ages Should Attendance at Elementary Schools be Made Compulsory? How Can a Compulsory Attendance Law for Elementary Education be Made Effective?*

ROGERS, SAMUEL L., Director, United States Census Bureau, Washington, D. C.

Chairman of Subsection B, Section VIII.

ROLETTI, JULIO S., Montevideo, Uruguay, South America.

Paper presented: *Topographic Triangulation of the Right Margin of the Yaguaron and Yaguaron Chico Rivers and the Arroyo de la Mina.*

ROLFS, P. H., University of Florida, Gainesville, Fla.

Delegate—University of Florida.

ROMERO, ELEODORO, Lima, Peru, South America.

Member Cooperating Committee, Peru.

ROMMEL, GEORGE M., Chief, Division of Animal Husbandry, Bureau of Animal Industry, Department of Agriculture, Washington, D. C.

Official Delegate of United States of America.

Member Executive Committee.

Chairman of Section III.

Chairman of Subsection 5, Section III.

Paper presented: *The Function of Live Stock in Agriculture.*

ROOD, JAMES T., Professor, Lafayette College, Easton, Pa.

Delegate—Lafayette College.

ROOT, Hon. ELIHU, President American Society of International Law, East Eighty-second Street, New York City, N. Y.
Delegate—American Society International Law.
Paper presented: *Should International Law be Codified? And if so, Should It be Done Through Governmental Agencies or by Private Scientific Societies?*

ROQUETTE PINTO, E., National Museum of Rio de Janeiro, Rio Janeiro, Brazil, South America.
Paper presented: *The Indians of "Serra do Norte" Matto Grosso, Brazil, South America.*

ROSA, EDWARD B., Bureau of Standards, Washington, D. C.
Paper presented: *Electrical Codes and Standards.*

ROSANOFF, M. A., The University of Pittsburgh, Pittsburgh, Pa.
Delegate—University of Pittsburgh.

ROSE, E. A., Metallurgist, American Smelting & Refining Company, New York City, N. Y.
Paper presented: *Metallurgical Operations at Chuquicamata.*

ROSE, J. N., Vice President Biological Society of Washington, National Museum, Washington, D. C.
Alternate—Biological Society of Washington.

ROSE, WICKLIFFE, 61 Broadway, New York City, N. Y.
Delegate—Rockefeller Foundation International Health Commission.

ROSENAU, M. J., Professor, Harvard Medical School, Boston, Mass.
Paper presented: *The Relation of Modes of Infection to the Control of Bacterial Diseases in Pan America.*

ROSENBLUTH, ROBERT, Department of Correction, New York City, N. Y.
Delegate—Bureau of Education.
Honorary Member.

ROSENFELD, ARTHUR H., Director and Entomologist of the Agricultural Experiment Station of Tucuman, Tucuman, Argentina, South America.
Delegate—
Agricultural Experiment Station of Tucuman.
University of Tucuman.

ROSSI, S. C., Montevideo, Uruguay, South America.
Paper presented: *Aftercare of the Insane as Prophylaxis.*

ROUMA, GEORGES, Bolivia, Director General of Education of Bolivia, La Paz, Bolivia, South America.
Papers presented:
The Desirability of Uniform Laws Throughout the Pan American Countries for the Protection of Antiquities, the Systematic Promotion of Anthropological Research, and the Collection and Scientific Treatment of Museum Materials.
Tables of the Physical Growth of the Pupils of La Paz.

ROUSH, C. A., Professor, Lehigh University, South Bethlehem, Pa.
Alternate—American Electrochemical Society.
Papers presented:
Mineral Production of the Various Latin American Countries.
Electrochemical Industries.

ROWE, LEO S., University of Pennsylvania, Philadelphia, Pa.
Official Delegate of the United States.
Delegate—
University of Pennsylvania.
National Municipal League.
Member of Executive Committee.
Chairman of Section IX.
Papers presented:
Are There Specific American Problems of International Law?
Opportunities in American Industrial Establishments for Graduates of Technical Schools of South America.

RUCH STURZENECKER, GASTÃO, Professor, Member of the Historical and Geographical Institute, Rio de Janiero, Brazil, South America.
Paper presented: *A Contribution to the Study of Brazilian Geography.*

RUCKER, WILLIAM C., Assistant Surgeon General United States Army, The Dresden, Washington, D. C.
Alternate—United States Public Health Service, Treasury Department.

RUIZ MORENO, ADRIÁN, Buenos Aires, Argentina, South America.
Paper presented: *Partial Methodology of Engineering Applied to Geodesy and Topography.*

RULE, ARTHUR R., General Manager North American Fruit Exchange, 90 West Street, New York City, N. Y.
Paper presented: *The Economic Trend in Wholesale Methods of Fruit Distribution.*

RUMSEY, Mrs. CHARLES CARY, 1721 H Street, Washington, D. C.
Delegate—
National Kindergarten Association.
National Committee on Provision for the Feeble-Mined.

RUTTER, FRANK R., Bureau of Foreign and Domestic Commerce, Department of Commerce, Washington, D. C.
Alternate—Bureau of Foreign and Domestic Commerce, Department of Commerce.

RYAN, WILLIAM A., United States Reclamation Service, Department of Interior, Washington, D. C.
Delegate—United States Reclamation Service, Department of Interior.

SADTLER, SAMUEL P., 39 South Tenth Street, Philadelphia, Pa.
Delegate—American Institute of Chemical Engineers.
Paper presented: *Dyestuffs from Materials Native to Latin-American Countries.*

SÁENZ, ANTONINO, Professor of International Law, Central University of Quito, Quito, Ecuador, South America.
Member Cooperating Committee, Ecuador.

SAFFORD, WILLIAM EDWIN, Bureau of Plant Industry, Department of Agriculture, Washington, D. C.
Delegate—Botanical Society of America.
Papers presented:
Food Plants and Textiles of Ancient America.
A Forgotten Food of Ancient America.

SALAS, DARÍO E., Professor of the Pedagogical Institute, Santiago, Chile, South America.
Official Delegate of Chile.
Delegate—
University of Chile.
Pedagogical Institute of Chile.
National Association of Teachers.
Scientific Society of Chile.
Atheneum of Santiago.
National Educational Society.
Papers presented:
Some of the Needs of Popular Education in Latin America.
To What Extent Should Elementary Education Be Supported by Local Taxation and to What Extent by State Taxation? What Should Be the Determining Factors in the Distribution of Support?

SALAS EDWARDS, RAMÓN, Professor, Catholic University of Chile, Santiago, Chile, South America.
Official Delegate of Chile.
Delegate
Catholic University of Santiago.
Engineers' Institute of Chile.
Paper presented: *Surface Curve of Water in an Open River Channel.*

SALAZAR, ARTURO E., Professor, University of Chile, Santiago, Chile, South America.
Official Delegate of Chile.
Delegate—
University of Chile.
National Educational Association.
Paper presented: *Exact Calculation of Electric Transmission Lines.*

SALGADO, BERNABÉ, Tegucigalpa, Honduras, Central America.
Paper presented: *Should Universities and Colleges Supported by Public Funds Be Controlled by Independent and Autonomous Powers, or Should They Be Controlled Directly by Central State Authority?*

SALISBURY, ROLLIN D., Professor, University of Chicago, Chicago, Ill.
Delegate—University of Chicago.

SALTERAIN, JOAQUÍN, Montevideo, Uruguay, South America.
Papers presented:
Etiology and Prevention of Tuberculosis from the Sociological Standpoint.
Five Years of Demographic Records in Uruguay.

SAMONATI, ALFREDO, Technical Inspector of Primary Instruction, Montevideo, Uruguay, South America.
Paper presented: *What Should Be the Place of Industrial Education in the School System of the American Republics? Should It Be Supported by Public Taxation? Should It Be Considered Under Separate Control? How and to What Extent May Industrial Schools Cooperate with Employers of Labor?*

SANBORN, E. H., Franklin Institute, Philadelphia, Pa.
Delegate—Franklin Institute.

SÁNCHEZ, JIL F., Panama City, Panama.
Paper presented: *Mining Laws of Panama.*

SÁNCHEZ, MANUEL MARÍA, Minister of Public Instruction, Quito, Ecuador, South America.
President Cooperating Committee, Ecuador.

SÁNCHEZ DE BUSTAMANTE Y SIRVEN, ANTONIO, Habana, Cuba.
Delegate—
Faculty of Law, University of Habana.
Cuban Society of International Law.

SÁNCHEZ DE FUENTES, FERNANDO, Member of the House of Representatives, Habana, Cuba.
Official Delegate of Cuba.
Delegate—Cuban Society of International Law.
Honorary Member.
Paper presented: *Presidential and Parliamentary Governments on the American Continent in State and Nation.*

SAN ROMÁN, IBERIO, Professor, National University of Buenos Aires, Calle Estados Unidos 2780, Buenos Aires, Argentina, South America.
Delegate—
Argentine Scientific Society.
Faculty of Exact Sciences, National University of Buenos Aires.
Public Institute of Secondary Instruction.
Paper presented: *New Traverse Tables, with Sexagesimal and Centesimal Division of Arcs.*

SANTANDER, LUIS A., University of Washington, Seattle, Wash.
Delegate—University of Washington.

SANTOS-DUMONT, ALBERTO, Aviator, 297 Madison Avenue, New York, N. Y.
Delegate—
Aero Club of America.
American Society of Aeronautic Engineers.
Papers presented:
How the Aeroplane May Effect Closer Alliance of the South American Countries with the United States.
Airships to Assist in Joining North and South America.

SARASOLA, SIMÓN, S. J., Director, Observatory of Montserrat, Cienfuegos, Cuba.
Official Delegate of Cuba.
Delegate—Observatory of Montserrat College.
Paper presented: *Investigation on the Prediction of Barometric Variations.*

SARGENT, DUDLEY A., Cambridge, Mass.
Delegate—American Physical Association.

SARMIENTO LASPIUR, EDUARDO, Counselor to the Ministry of Foreign Affairs, Cangallo 456, Buenos Aires, Argentina, South America.
Delegate—
Argentine Society of International Law.
National University of Cordoba.
Faculty of Economics, National University of Buenos Aires.
Honorary Member.
Paper presented: *The Great European War and the Neutrality of Chile.* (By ALEJANDRO ÁLVAREZ.)

SARMIENTO LASPIUR, RICARDO, Doctor in Medicine and Surgery, 645 Maipu, Buenos Aires, Argentina, South America.
Official Delegate of Argentina.
Delegate—
Faculty of Medicine of the National University.
Board of Public Charities of Buenos Aires.
Papers presented:
Plans for the Regulation of the Milk Commerce in Buenos Aires.
Concept of Anaphylaxis According to the Biological Immunity Theory of Argentina.
Treatment of the Insane at Large in the Argentine Republic.
Causes of Crime.

SAUERBRONN CARPENTER, LUIZ FREDERICO, Rio de Janeiro, Brazil.
Paper presented: *Scientific Farming or Agricultural Instruction in Brazil.*

SAUNDERS, WILLIAM L., President American Institute of Mining Engineers, 29 West Thirty-ninth Street, New York, N. Y.
Delegate—American Institute of Mining Engineers.
Member of Committee, Subsection 1, Section VII.
Paper presented: *Lifting Ground Waters by Compressed Air.*

SAVILLE, MARSHALL H., Museum of the American Indian, Heye Foundation, 10 East Thirty-third Street, New York N. Y.
Delegate—Museum of the American Indian (the Heye Foundation).
Member of Committee, Subsection 2, Section I.

SAWYER, W. A., California State Board of Health, Bureau of Administration, Sacramento, Cal.
Delegate—California State Board of Health.

SAYRE, FRANCIS BOWES, Williamstown, Mass.
Delegate—Williams College.

SCHALLENBERGER, MARGARET, Commissioner of Elementary Education, State Department of Education, Sacramento, Cal.
Member of Committee, Subsection 4, Section IV.

SCHAPIRO, LUIS, Assistant Director of the Ankilostomiasis Department, Costa Rica, San José, Costa Rica, Central America.
Papers presented:
Influence of Ankilostomiasis upon Agriculture and the Infantile Mortality in Costa Rica.
Medical Inspection in the Schools of Costa Rica.

SCHERER, JAMES A. B., Throop College of Technology, Pasadena, Cal.
Delegate—Throop College of Technology.

SCHLESINGER, ARTHUR M., Ohio State University, Columbus, Ohio.
Delegate—Ohio State Archæological and Historical Society.

SCHMITT, RICHARD B., Canisius College, Buffalo, N. Y.
Delegate—Canisius College.

SCHNEIDER, HERMAN, University of Cincinnati, Cincinnati, Ohio.
Member of Committee, Subsection 6, Section IV.

SCHOFF, WILFORD H., Commercial Museum, Philadelphia, Pa.
Alternate—Commercial Museum.

SCHOLZ, CARL, President, American Mining Congress, Chicago, Ill.
Delegate—American Mining Congress.
Paper presented: *The American Mining Congress and Its Work.*

SCHROEDER, JUAN, Montevideo, Uruguay, South America.
Member Cooperating Committee, Uruguay.

SCHURMAN, JACOB GOULD, President, Cornell University, Ithaca, N. Y.
Delegate—Cornell University.
Member of Committee, Subsection 1, Section VI.
Paper presented: *The Study of International Law in American Countries and the Means by Which it May be Made More Effective.*

SCHWEDTMAN, F. C., Educational Director, The National City Bank, New York, N. Y.
Paper presented: *Special Courses for Commercial Study—The National City Bank.*

SCOFIELD, C. S., Bureau of Plant Industry, Department of Agriculture, Washington, D. C.
Member of Committee, Subsection 4, Section III.

SCOSERIA, JOSÉ, Montevideo, Uruguay, South America.
Member Cooperating Committee, Uruguay.

SCOTT, Gen. HUGH L., United States Army, War Department, Washington, D. C.
Paper presented: *Notes on the Sign Language of the Plains Indians.*

SCOTT, JAMES BROWN, Secretary, Carnegie Endowment for International Peace, Washington, D. C.
Reporter General.
Official Delegate of the United States.
Delegate—
American Society of International Law.
Carnegie Endowment for International Peace.
Vice Chairman of Executive Committee.
Chairman of Section VI.
Opened Session of each Subsection of Section VI.

SCOTT, JAMES R., Army Medical Museum, War Department, Washington, D. C.
Alternate—Army Medical Museum.

SCOTT, WILLIAM BERRYMAN, Professor, Princeton University, Princeton, N. J.
Delegate—
University of Princeton.
American Philosophical Society.

SCRIBNER, C. E., Chief Engineer, Western Electric Company, 463 West Street, New York, N. Y.
Paper presented: *Telephone Development.*

SEARES, F. H., 351 Palmetto Drive, Pasadena, Cal.
Paper presented: *Work of Mount Wilson Solar Observatory.*

SEDGWICK, WILLIAM T., Professor, Massachusetts Institute of Technology, Boston, Mass.
Delegate—Massachusetts Institute of Technology.
Paper presented: *Disposal of Refuse.*

SELIGMAN, EDWIN R. A., Professor, Columbia University, New York, N. Y.
Chairman of Subsection 4, Section IX.
Paper presented: *Principles that Should Govern the Relations Between Federal, State, and Local Revenues.*

SELIGMAN, ISAAC, 1 William Street, New York, N. Y.
Delegate—National Child Labor Association.

SELLS, CATO, Commissioner of Indian Affairs, Department of the Interior, Washington, D. C.
Paper presented: *The United States Government and the Indians.*

SEMPERE ROQUET, Louisville Board of Trade, Louisville, Ky.
Alternate—Louisville Board of Trade.

SHANTS, H. L., United States Bureau of Plant Industry, Department of Agriculture, Washington, D. C.
Delegate—Colorado College.
Paper presented: *The Water Requirement of Plants as Influenced by Environment.*

SHARP, CLAYTON H., New York Electrical Testing Laboratories, Eightieth Street and East End Avenue, New York, N. Y.
Paper presented: *Acceptance Tests of Electrical Apparatus.*

SHARPLESS, F. F., Secretary, Mining and Metallurgical Society, New York, N. Y.
Paper presented: *Mining, the Pioneer of Intimate Commercial Relations.*

SHAW, E. W., Geologist, United States Geological Survey, Washington, D. C.
Paper presented: *Petroleums and Asphalts in the United States.*

SHAWKEY, M. P., State Superintendent of Schools, Charleston, W. Va.
Member of Committee, Subsection 1, Section IV.

SHEAR, CORNELIUS L., Bureau Plant Industry, Department of Agriculture, Washington, D. C.
Alternate—American Phytopathological Society.

SHEDD, H. G., Omaha, Nebraska.
Paper presented: *Securing Settlers for Private Irrigation Projects.*

SHEPHERD, WILLIAM R., Professor, Columbia University, New York, N. Y.
Honorary Member.
Paper presented: *The Teaching of History in the Collegiate Course of Study for Business, Domestic and Foreign.*

SHERMAN, GORDON E., Professor, Yale University, New Haven, Conn.
Delegate—Yale University Law School.
Paper presented: *The Historical Evolution of Public Law.*

SHERMAN, W. A., United States Office of Markets and Rural Organization, Department of Agriculture, Washington, D. C.
Paper presented: *The Development of a Market News Service.*

SHERWELL, GUILLERMO, 33 Schermerhorn Street, Brooklyn, N. Y.
Paper presented: *Problem of Primary Education in Latin America.*

SHERWOOD, MARY, The Arundel, Baltimore, Md.
Delegate—Association of Collegiate Alumnae.

SHICK, ROBERT P., Secretary of the Bureau of Comparative Law of the Bar Association, 1107 Franklin Bank Building, Philadelphia, Pa.
Alternate—Comparative Law Bureau.
Paper presented: *How May Lawyers of One Country be Most Easily and Effectively Made Acquainted with the Laws of Another Country?*

SHIPLEY, F. W., Washington University, St. Louis, Mo.
Delegate—Archæological Institute of America.

SIEBENTHAL, C. E., Geologist, United States Geological Survey, Washington, D. C.
Member of Committee, Subsection 1, Section III.
Paper presented: *Lead and Zinc in the United States.*

SILVA CRUZ, CARLOS, Santiago, Chile, South America.
Paper presented: *Pan American Bibliographic Union.*

SILVEIRA, ALFREDO BALTHAZAR DA, Rio de Janeiro, Brazil, South America.
Paper presented: *Delicte Juvenil.*

SIMMS, J. V., Charlotte Chamber of Commerce, Charlotte, N. C.
Delegate—Charlotte Chamber of Commerce.

SIMOENS DA SILVA, ANTONIO CARLOS, President, Historical and Geographical Institute of Rio de Janeiro, Rua Visconde da Silva 111, Rio de Janeiro, Brazil, South America.
Delegate—Simoens da Silva Museum.
Papers presented:
The Grindstones of the Primitive Inhabitants of Cabo Frio.
Jade in Brazil.

SIMONS, THEODORE, Montana State School of Mines, Butte, Mont.
Delegate—
Montana State School of Mines.
Montana Society of Engineers.

SINGEWALD, JOSEPH T., Jr., Associate, Economic Geology, Johns Hopkins University, Baltimore, Md.
Papers presented:
Fuel Situation in the Andean Plateau.
Genesis of Chilean Nitrate Deposits.

SIQUEIRA CAMPOS, PEDRO, Engineer, Sanitary Service of the State of Sao Paulo, Rua Pirapitinguy 24, Sao Paulo, Brazil, South America.
Delegate—
Scientific Society of Sao Paulo.
Polytechnic School of Sao Paulo.

SLOCUM, WILLIAM F., President, Colorado College, Colorado Springs, Colo.
Delegate—College of Colorado.

SLYE, MAUD, 5836 Drexel Avenue, Chicago, Ill.
Paper presented: *Experimental Studies in Heredity.*

SMALL, ALBION W, Professor, University of Chicago, Chicago, Ill.
Delegate—American Sociological Society.
Paper presented: *Function of Graduate Schools in the Universities of the United States.*

SMITH, ALLEN J., School of Medicine, University of Pennsylvania, Philadelphia, Pa.
Paper presented: *The Occurrence of Filariasis in Pan America.*

SMITH, ALBERTO, National Bank of Cuba, Habana, Cuba.
Paper presented: *Engineering Nomenclature.*

SMITH, CLINTON D., Cornell University, Ithaca, N. Y.
Delegate—National Society of Agriculture of Brazil.
Paper presented: *The Resources of Brazil.*

SMITH, EDWARD LAURENCE, Dean, Delaware College, Newark, Del.
Delegate—Delaware College.

SMITH, E. F., Department of Agriculture, Washington, D. C.
Paper presented: *Cancer Problems in Special Biological Groups, (a) Plant Tumors.*

SMITH, GEORGE OTIS, Director, United States Geological Survey, Department of the Interior, Washington, D. C.
Delegate—
United States Geological Survey.
Mining and Metallurgical Society of America.
Chairman of Subsection 3, Section VII.
Papers presented:
The Public Interest in Mineral Resources.
The Peoples' Interest in Water-Power Resources.

SMITH, H. M., Commissioner of Fisheries, United States Department of Commerce, Washington, D. C.
Delegate—Bureau of Fisheries, Department of Commerce.
Alternate—Cosmos Club.

SMITH, HERBERT A., Forest Service, Washington, D. C.
Paper presented: *Organization by Consumers.*

SMITH, J. WARREN, United States Weather Bureau, Columbus, Ohio.
Paper presented: *Agricultural Meteorology.*

SMITH, KIRBY FLOWER, Professor, Johns Hopkins University, Baltimore, Md.
Delegate—American Philological Association.

SMITHERS, WILLIAM W., Land Title Building, Philadelphia, Pa.
Paper presented: *Public Law as Affecting Legal Procedure in Civil Causes.*

SNEATH, Mrs. SAMUEL B., 211 Monroe Street, Tiffin, Ohio.
Alternate—General Federation of Womens' Clubs.

SNEDDEN, DAVID, Commissioner of Education of Massachusetts, Boston, Mass.
Member of Committee, Subsection 9, Section IV.
Paper presented: *How to Procure Adequately Prepared Instructors, for Commercial Courses in Secondary Schools.*

SNIDER, GUY EDWARD, College of the City of New York, New York, N. Y.
Alternate—College of the City of New York.

SNOW, ALPHEUS H., 2013 Massachusetts Avenue NW., Washington, D. C.
Member of Committee, Subsection 1, Section VI.

SNOW, WILLIAM F., General Secretary American Social Hygiene Association, 105 West Fortieth Street, New York City, N. Y.
Paper presented: *Public Health Measures in Relation to Venereal Diseases.*

SNOWDEN, ALBERT A., 30 Church Street, New York City, N. Y.
Delegate—National Association of Manufacturers.

SOCA, FRANCISCO, Montevideo, Uruguay, South America.
Member Cooperating Committee, Uruguay.

SOLANO, NICOLÁS A., Member of the Canal Zone Medical Association, Avenue 55, Panama City, Panama.
Official Delegate of Panama.
Honorary Member.
Paper presented: *Etiology and Prevention of Tuberculosis from the Sociological Standpoint.*

SOLARI, ANTONIO F., Buenos Aires, Argentina, South America.
Papers presented:
Need of Reforming the Taxation Laws so as to Correlate Them With the Partial Surveying Undertaken by the Government as an Economic Policy
Partial Cadastral Surveys in the Application of Taxation Laws in Real Estate—Their Execution and Importance.

SOLÍS, ANTENOR, La Paz, Bolivia, South America.
Paper presented: *Origin of Man.*

SOPER, GEORGE A., President Metropolitan Sewage Commission, 391 West End Avenue, New York City, N. Y.
Paper presented: *Disposal of Refuse.*

SORO, ENRIQUE, Author of the Pan American Hymn, Santiago, Chile, South America.
Delegate—Atheneum de Santiago de Chile.

SORZANO, JULIO F., 52 Broadway, New York City, N. Y.
Alternate—Chamber of Commerce of State of New York.

SOSMAN, R. H., Washington, D. C.
Delegate—Chemical Society of Washington.

SOTOMAYOR, JUSTINIANO, Director School of Arts and Crafts of Santiago, Santiago, Chile, South America.
Paper presented: *To What Extent May College Courses in Engineering be Profitably Supplemented by Practical Work in the Industrial Plants?*

SOULE, ANDREW M., President State College of Agriculture, Athens, Ga.
Member of Committee, Subsection 8, Section IV.
Paper presented: *Influence of Extension Work on Southern Farm Practice.*

SOUTHARD, E. E., Professor, Harvard Medical School, Boston, Mass.
Papers presented:
Aftercare of the Insane as Prophylaxis.
On the Relative Complexity of Male and Female Brains.

SOUTHGATE, T. S., Norfolk, Va.
Alternate—Southern Commercial Congress.

SOUTO MAIOR, PEDRO, Rio de Janeiro, Brazil, South America.
Delegate—Brazilian Historical and Geographical Society.
Paper presented: *Inland Navigation in Brazil.*

SPANHOOFD, ARNOLD WERNER, Department of Modern Languages, High Schools, Washington, D. C.
Alternate—Modern Language Association of America.

SPENCER, A. C., Geological Survey, Department of the Interior, Washington, D. C.
Alternate Geological Society of Washington.

SPENDER, H. B., Vice President Southern Railway, Washington, D. C.
Delegate—American Highway Association.
Alternate—American Railway Engineering Association.

SPERRY, ELMER A., Sperry Gyroscope Company, Manhattan Bridge Plaza, Brooklyn, N. Y.
Paper presented: *The Gyroscope Applied to Aerial and Water Navigation.*

SPILLMAN, W. J., American Farm Management Association, Department of Agriculture, Washington, D. C.
Delegate—American Farm Management Association.

SPINDEN, HERBERT J., American Museum of Natural History, New York City, N. Y.
Alternate—American Museum of Natural History.
Papers presented:
On the Origin and Distribution of Agriculture in America.
Recent Progress in the Study of Maya Art.

SPRAGUE, NORMAN S., Superintendent of Bureau of Engineering, Pittsburgh, Pa.
Delegate—American Society of Municipal Improvements.

SPRINGER, FRANK, School of American Archæology, Museum of New Mexico, Santa Fe, N. Mex.
Delegate—School of American Archæology.

STAAL, GEORGE, President Engineers' Society of Milwaukee, Wells Building, Milwaukee, Wis.
Delegate—Engineers' Society of Milwaukee.

STABLER, HERMAN, United States Geological Survey, Washington, D. C.
Member of Committee, Subsection 3, Section III.

STANDISH, JOHN VAN NESS, President Knox College, Galesburg, Ill.
Delegate—Knox College.

STANFORD, HOMER R., Bureau Yards and Docks, Navy Department, Washington, D. C.
Delegate—Bureau Yards and Docks, Navy Department.

STARR, FREDERICK, University of Chicago, Chicago, Ill.
Member of Committee, Subsection 1, Section I.

STEDMAN, J. M., Farmers' Institute Specialist, Department of Agriculture, Washington, D. C.
Delegate—American Association Farmers' Institute Workers.

STEELE, DANIEL ATKINSON KING, Senior Dean College of Medicine, University of Illinois, Chicago, Ill.
Paper presented: *The Development of Entrance Requirements in Medical Education and the Effect of this Development on Attendance in Medical Colleges in the United States.*

STEINMETZ, C. P., Wendell Avenue, Schenectady, N. Y.
Delegate—Illuminating Engineering Society.

STEWART, C. E., Department of Justice, Washington, D. C.
Alternate—Department of Justice.

STITT, E. R., Naval Medical School, Navy Department, Washington, D. C.
Delegate—Naval Medical School.

STOCKTON, CHARLES HERBERT, President, George Washington University, Washington, D. C.
Delegate—George Washington University.

STONE, JOHN STONE, 111 Broadway, New York, N. Y.
Delegate—Institute of Radio Engineers.

STONE, WINTHROP E., President, Purdue University, La Fayette, Ind.
Delegate—Purdue University.
Chairman, Subsection 8, Section IV.

STORER, N. W., Westinghouse Electrical and Manufacturing Company, East Pittsburgh, Pa.
Paper presented: *Electrification of Transportation Lines.*

STOREY, MOREFIELD, Exchange Building, Boston, Mass.
Member of Committee, Subsection 3, Section VI.

STORRS, ARTHUR HOVEY, 415 North Washington Avenue, Scranton, Pa.
Delegate—Engineers' Society of Northeastern Pennsylvania.

STOUGHTON, BRADLEY, Secretary American Institute of Mining Engineers, 29 West Thirty-ninth Street, New York, N. Y.
Alternate—American Institute of Mining Engineers.
Member of Committee, Subsection 2, Section VII.

STRAIGHT, WILLARD, Equitable Building, 120 Broadway, New York, N. Y.

Paper presented: *The Requisites for the Encouragement of the Investment of Foreign Capital.*

STRATHERS, MADISON, Professor, University of West Virginia, Morgantown, W. Va.

Delegate—Association of Colleges and Preparatory Schools of the Southern States.

STRATTEN, S. W., Bureau of Standards, Department of Commerce, Washington, D. C.

Delegate—

Bureau of Standards.

American Physical Society.

Member of Committee, Section V.

Chairman, Subsection 6, Section V.

Paper presented: *Work of the United States National Bureau of Standards.*

STRAUSS, J. B., 104 South Michigan Avenue, Chicago, Ill.

Paper presented: *Bascule Bridges.*

STROHAVER, Rev. C. FRANCIS, Professor, Fordham University, New York, N. Y.

Delegate—Fordham University of New York.

STRONG, R. P., Professor, Harvard University, Cambridge, Mass.

Paper presented: *The Eradication of Typhus Fever in Serbia.*

STUCKI, A., President, Engineers' Society of Western Pennsylvania, 2511 Oliver Building, Pittsburg, Pa.

Delegate—Engineers' Society of Western Pennsylvania.

SUÁREZ, JOSÉ LEÓN, Professor, National University of Buenos Aires, Bartolome Mitre 3113, Buenos Aires, Argentina.

Paper presented: *American International Convention of Sanitary Police.*

SUÁREZ MUJICA, His Excellency EDUARDO, Chilean Ambassador to the United States, President of the Second Pan American Scientific Congress, Chilean Embassy, 1013 Sixteenth Street, Washington, D. C.

Chairman of the Official Delegation of Chile.

Delegate—National Educational Association.

SUBERCASEAUX, GUILLERMO, Professor of Political Economy, University of Chile, Santiago, Chile, South America.

Paper presented: *A Common Monetary Unit for America.*

SUMNER, HELEN L., Department of Labor, Washington, D. C.
Alternate—Children's Bureau, Department of Labor.

SUNDBERG, ROBERTO, Director of the "Agricultural Defense," Montevideo, Uruguay, South America.
Secretary Cooperating Committee, Uruguay.
Paper presented: *Pan American Cooperation in the Quarantine of Plants.*

SURRACO CANTERA, HUGO, Montevideo, Uruguay, South America.
Member Cooperating Committee, Uruguay.

SUSVIELA GUARCH, FEDERICO, former Envoy Extraordinary and Minister Plenipotentiary from Uruguay to Berlin, Montevideo, Uruguay, South America.
Paper presented: *Venereal Granuloma.*

SUTTON, CHARLES W., Civil Engineer, 80 Maiden Lane, New York N. Y.
Member of Committee, Subsection 4, Section III.
Paper presented: *Irrigation and Public Policy in Peru.*

SUTTON, H. T., Zanesville, Ohio.
Alternate—Ohio State Board of Health.

SUZZALLO, HENRY, President, University of Washington, Seattle, Wash.
Member of Committee, Subsection 5, Section IV.

SWAIN, JOSEPH, President, Swarthmore College, Swarthmore, Pa.
Delegate—National Education Association.

SWANN, WILLIAM F. G., Department of Terrestrial Magnetism, Carnegie Institution, Washington, D. C.
Paper presented: *Atmospheric Electric Observations Aboard the "Carnegie."*

SWANSON, ARTHUR E., Northwestern University, Evanston, Ill.
Paper presented: *Teaching of Business Organization and Administration.*

SWANTON, JOHN R., President, Anthropological Society of Washington, Washington, D. C.
Delegate—Anthropological Society of Washington.
Member of Committee, Subsection 1, Section I.

SWASEY, AMBROSE, 7808 Euclid Avenue, Cleveland, Ohio.
Delegate—American Society of Mechanical Engineers.

SWIFT, CHARLES M., Middlebury, Vt.
Delegate—Merchants' Association, Manila, P. I.

SWIGGETT, GLEN LEVIN, Professor, University of Tennessee, Knoxville, Tenn.
Assistant Secretary General.
Delegate—Southern Geographical Society.
Alternate—Knoxville (Tenn.) Board of Commerce.
Chairman, Subsection 10, Section IV.

SWING, R. HAMILL, 1623 Walnut Street, Philadelphia, Pa.
Alternate—National Dental Association.

TAFT, WILLIAM H., Professor, Yale University, New Haven, Conn.
Honorary Member.
Member of Committee, Subsection 3, Section VI.

TALBOT, MARION, Dean of Women, University of Chicago, Chicago, Ill.
Member of Committee, Subsection 4, Section IV.

TÁLICE, ALEJANDRO, Montevideo, Uruguay, South America.
Paper presented: *Credit and Banking in Uruguay.*

TALLMAN, CLAY, Commissioner General Land Office, Department of the Interior, Washington, D. C.
Delegate—General Land Office.

TALMAGE, JAMES E., Deseret Museum, Salt Lake City, Utah.
Alternate—American Association of Museums.

TALMAN, C. FITZHUGH, United States Weather Bureau, Washington, D. C.
Secretary of Subsection B, Section II.

TAUSSIG, FRANK W., Professor, Harvard University, Cambridge, Mass.
Paper presented: *Maintenance of Retail Prices.*

TAVARES CAVALCANTI, MANUEL, Parahiba, Brazil, South America.
Paper presented: *Are There Specific American Problems of International Law?*

TAYLOR, D. W., Chief Bureau of Construction and Repair, Navy Department, Washington, D. C.
Delegate—Society of Naval Architects and Marine Engineers.
Member of Committee, Section V.
Alternate Chairman, Subsection 2, Section V.
Paper presented: *Scientific Work of the United States Navy.*

TEELE, R. P., Office of Public Roads and Rural Engineering, Department of Agriculture, Washington, D. C.
Member of Committee, Subsection 4, Section III.
Paper presented: *Public Control of Irrigation in the United States.*

TEJADA SOLÓRZANO, CARLOS, Civil Engineer, La Paz, Bolivia, South America.
Paper presented: *Uniform Gauge for Railways in Central and South America.*

TELLO, JULIO C., Lima, Peru, South America.
Official Delegate of Peru.
Honorary Member.
Papers presented:
Early Graves of Nasco Valley, Peru.
Cougar Motif in Peruvian Art.

TERÁN, IGNACIO, La Paz, Bolivia, South America.
Paper presented: *Something about the Linguistics of Bolivia.*

THAYER, B. B., Past President, American Institute of Mining Engineers, 42 Broadway, New York City, N. Y.
Member of Committee, Subsection 1, Section VII.

THAYER OJEDA, LUIS, The Public Library, Santiago, Chile, South America.
Paper presented: *A Study of Family Names in Chile.*

THIESSEN, A. H., United States Weather Bureau, Salt Lake City, Utah.
Paper presented: *The Climate of Salt Lake City.*

THOM, ALFRED P., General Counsel, Southern Railway Company, Washington, D. C.
Official Delegate of the United States.
Paper presented: *The Relation of Central to Local Control in the Regulation of Public Utilities.*

THOM, WILLIAM TAYLOR, 2022 N Street, Washington, D. C.
Alternate—Washington and Lee University.

THOMAS, CARL C., Professor, Johns Hopkins University, Baltimore, Md.
Alternate—Johns Hopkins University.
Member of Committee, Section V.
Chairman of Subsection 5, Section V.

THOMAS, J. J., 1110 Euclid Avenue, Cleveland, Ohio.
Delegate—American Association of Medical Milk Commissioners.

THOMAS, PERCY H., 2 Rector Street, New York City, N. Y.
Member of Committee, Section V.
Paper presented: *Electric Power Transmission and Distribution Systems.*

THOMPSON, A. W., Vice President Baltimore & Ohio Railroad, Central Building, Baltimore, Md.
Delegate—American Railway Engineering Association.

THOMPSON, C. W., United States Office of Markets and Rural Organization, Department of Agriculture, Washington, D. C.
Delegate—United States Office of Markets and Rural Organization.
Paper presented: *The Marketing of Farm Mortgage Loans.*

THOMPSON, J. W., Law Examiner, United States Bureau of Mines, Washington, D. C.
Paper presented: *Mining Law of the United States.*

THOMPSON, NELSON S., 410 Belmont Street, Washington, D. C.
Delegate—National District Heating Association.

THOMPSON, S. A., 824 Colorado Building, Washington, D. C.
Delegate—National Rivers and Harbors Congress.

THOMPSON, WILLIAM OXLEY, President Ohio State University, Columbus, Ohio.
Member of Committee, Subsection 3. Section IV.

THOMPSON, Mrs. WILLIAM OXLEY, Ohio State University, Columbus, Ohio.
Delegate—National Federation of College Women.

THORNDIKE, EDWARD L., Professor, Teachers College, Columbia University, New York City, N. Y.
Delegate—American Psychological Association.

THWING, CHARLES F., President, Western Reserve University, Cleveland, Ohio.
Delegate—Western Reserve University.

TILLMAN, SAMUEL E., 52 Bayard Lane, Princeton, N. J.
Delegate—United States Military Academy.

TILLSON, GEORGE W., Consulting Engineer, Borough of Brooklyn, Brooklyn, N. Y.
Paper presented: *City Streets and Pavements.*

TITSWORTH, ALFRED A., Dean of Engineering, Rutgers College, New Brunswick, N. J.
Delegate—Rutgers College.

TITTMAN, O. H., Leesburg, Va.
Delegate—National Geographic Society.
Alternate—Chairman, Subsection 6, Section V.

TIZÓN Y BUENO, RICARDO, Avenida General Castilla 1, Chorrillos, Perú, South America.
Member Cooperating Committee, Peru.

TOBAR Y BORGOÑO, CARLOS M., Dean, Faculty of Sciences, Central University of Quito, Quito, Ecuador, South America.
Member Cooperating Committee, Ecuador.

TOCH, MAXIMILIAN, Chemist, 320 Fifth Avenue, New York, N. Y.
Delegate—Chemists' Club.
Paper presented: *Paints for Tropical Climates.*

TODD, A. J., Professor, University of Minnesota, Minneapolis, Minn.
Delegate—University of Minnesota.

TONDORF, Rev. FRANCIS A., Georgetown University, Washington, D. C.
Delegate—Georgetown University.

TORCHIO, PHILIP, 124 East Fifteenth Street, New York, N. Y.
Paper presented: *Industrial Applications of Electricity.*

TORO, ELÍAS, Caracas, Venezuela, South America.
Member Cooperating Committee, Venezuela.

TORRES UMAÑA, CALIXTO, Professor, National University of Colombia, Bogota, Colombia, South America.
Official Delegate of Colombia.
Paper presented: *Retardation of Nutrition in Highlands of Bogota.*

TOTTEN, GEORGE OAKLEY, Jr., 808 Seventeenth Street NW., Washington, D. C.
Delegate—American Institute of Architects.

TOUMEY, J. W., Professor, Yale University, New Haven, Conn.
Member of Committee, Subsection 2, Section III.
Papers presented:
The Interdependence of Forest Conservation and Forestry Education.
Education in Forestry.

TOWNSEND, C. H. T., Bureau of Entomology, United States Department of Agriculture, Washington, D. C.
Paper presented: *Discovery and Identification of the Stages in the Asexual Cycle of the Causative Organism of Peruvian Verruga.*

TOZZER, ALFRED M., Peabody Museum, Harvard University, Cambridge, Mass.
Delegate—Peabody Museum of Harvard University.
Harvard University.

TRANSOM, FREDERICK, 2121 First Street NW., Washington, D. C.
Alternate—Engineers' Club of Philadelphia.
Paper presented: *Some Possible Reciprocal Relations in the Patent Practice of Pan American Countries.*

TRASK, JOHN W., United States Public Health Service, Washington, D. C.
Paper presented: *The Relation of Sickness Reports to Health Administration.*

TRAVERSARI, PEDRO PABLO, Director of Fine Arts, Quito, Ecuador, South America.
Member Cooperating Committee, Ecuador.
Papers presented:
American Archaeology in Modern Civilization.
The Fine Arts in The Public Instruction in America.

TRAVIESO, JOAQUÍN, Montevideo, Uruguay, South America.
Paper presented: *Prophylaxis of Gonorrhea and Syphilis.*

TREADWELL, AARON L., Professor, Vassar College, Poughkeepsie, N. Y.
Delegate—Vassar College.

TRELEVEN, J. E., University of Texas, Austin, Tex.
Delegate—University of Texas.

TRIANA, MIGUEL, Civil Engineer, Bogota, Colombia, South America.
Paper presented: *Improvement of Mouth of Magdalena River.*

TRISTÁN, J. FIDEL, Professor, San José, Costa Rica, Central America.
Paper presented: *Some Phenomena of Cryptocromic.*

TROTTER, FRANK B., University of West Virginia, Morgantown, W. Va.
Delegate—West Virginia University.

TRUAX, H. E., States Relation Service, Department of Agriculture, Washington, D. C.
Delegate—University of Arkansas.

TRUE, ALFRED CHARLES, Director States Relation Service, Department of Agriculture, Washington, D. C.
Delegate—States Relation Service.
Paper presented: *Education for the Baccalaureate Degree as Administered in Agricultural Colleges.*

TSMANEU, F. B., Mission House, Catholic University of Washington, Washington, D. C.
Member of Committee, Subsection 3, Section I.

TUFIÑO, LUIS G., Director, Astronomical and Seismological Observatory, Quito, Ecuador, South America.
Member Cooperating Committee, Ecuador.
Paper presented: *Thesis on Agricultural Meteorology.*

TURENNE, AUGUSTO, Montevideo, Uruguay, South America.
Paper presented: *Employment of Married and Pregnant Women and the Protection and Promotion of the Health of Female Wage Earners.*

TURNER, ABBY H., Mount Holyoke College, South Hadley, Mass.
Alternate—Mount Holyoke College.

TWITCHELL, RALPH EMERSON, School of American Archæology, Museum of New Mexico, Santa Fe, N. Mex.
Delegate—School of American Archæology.

TYRER, A. J., United States Bureau of Navigation, Department of Commerce, Washington, D. C.
Delegate—Bureau of Navigation, Department of Commerce.

TYZZER, E. E., Harvard Medical School, Boston, Mass.
Paper presented: *Factors in Immunity to Cancer.*

UCLÉS, CARLOS ALBERTO, Rector, University of Honduras, Tegucigalpa, Honduras, Central America.
Chairman of the Official Delegation of Honduras.
Delegate—University of Honduras.
President Cooperating Committee, Honduras.

UGUETO, LUIS, Director of the Cagigal Observatory, Caracas, Venezuela, South America.
Member Cooperating Committee, Venezuela.
Paper presented: *First Steps of Venezuela in the Field of Meteorology.*

UHLE, MAX, Santiago, Chile, South America.
Paper presented:
The Desirability of Uniform Laws Throughout the Pan American Countries for the Protection of Antiquities, the Systematic Promotion of Anthropological Research, and the Collection and Scientific Treatment of Museum Materials.

ULLRICH, J. H., 22 North Carey Street, Baltimore, Md.
Alternate—Association of Military Surgeons of the United States.

URIOLA, CIRO L., Panama City, Panama.
Member Cooperating Committee, Panama.

URRUTIA, RICARDO DE J., Assistant Secretary of Foreign Affairs, Tegucigalpa, Honduras, Central America.
Honorary Member.
Secretary Cooperating Committee, Honduras.

VALDEZ, RAMÓN N., Vice President of the Republic of Panama, Panama City, Panama.
Official Delegate of Panama.
Honorary Member.

VALVERDE, ANTONIO L., Professor, School of Commerce, Habana, Cuba.
Paper presented: *How Can a Nation Prepare in the Most Effective Manner Its Young Men for a Business Career that is to be Pursued at Home or in a Foreign Country?*
(*a*) In schools that are a part of the public school system.
(*b*) In schools of private endowment.
(*c*) In special business schools of private ownership.

VAN DEVANTER, W., Associate Justice of the Supreme Court of the United States, Washington, D. C.
Member of Committee, Subsection 1, Section VI.

VAN HISE, CHARLES R., President, University of Wisconsin, Madison, Wis.
Delegate of the University of Wisconsin.
Member of Committee, Subsection 3, Section VII.

VAN HORN, FRANK R., Professor, Case School of Applied Science, Cleveland, Ohio.
Delegate of Case School of Applied Science.

VAN RENSSELAER, MARTHA, Professor, Cornell University, Ithaca, N. Y.
Alternate—American Home Economics Association.

VARELA, TOMÁS S., Professor, University of Buenos Aires, Suipacha 612, Buenos Aires, Argentina, South America.
Official Delegate Secretary of Argentina.
Delegate—
Faculty of Medicine of Buenos Aires.
Pedagogical Institute of Buenos Aires.
Argentine Odontological Society.
Papers presented:
Buccal Flora and Fauna.
The Model Institute of Medical Clinics in Buenos Aires.

VARGAS, MOISÉS, Professor, University of Chile, Santiago, Chile, South America.
Official Delegate of Chile.
Honorary Member.
Delegate—
Society of Geography and History.
Permanent Local Government Commission.
University of Chile.
Paper presented: *The Power of the President to Dictate By-laws and Regulations.*

VARGAS TORRES, JOSÉ A., Bogota, Colombia, South America.
Paper presented: *Criminal Law and Procedure With Special Reference to the Scope and Limits of Jury Trials, and the Several Theories for the Punishment of Criminals, and Differences between the Criminal Procedure of States Following the Civil Law and Those Following the Common Law.*

VARNEY, THEODORE, Aluminum Company of America, Pittsburgh, Pa.
Paper presented: *Aluminum Conductors for Electric Transmission Lines.*

VATÍN, JULIO, Chief Section of Mines, Geology, and Hydrology, Buenos Aires, Argentina, South America.
Paper presented: *Extension and Possible Development of the Borax Deposits of Argentina.*

VAUGHAN, GEORGE TULLY, 1718 I Street NW., Washington, D. C.
Delegate—American Surgical Society.

VAUGHAN, T. WAYLAND, President Geological Society of Washington, Washington, D. C.
Delegate—Geological Society of Washington.

VAZ FERREIRA, CARLOS, Montevideo, Uruguay, South America.
Member Cooperating Committee, Uruguay.

VEAZEY, WILLIAM R., Case School of Applied Science, Cleveland, Ohio.
Delegate—Case School of Applied Sciences.

VEDDER, E. B., Professor, Army Medical School, Washington, D. C.
Paper presented: *The Known and the Unknown with Regard to the Etiology and Prevention of Beriberi.*

VEILLER, LAWRENCE, Director National Housing Company, 105 East Twenty-second Street, New York City, N. Y.
Delegate National Housing Association.
Paper presented: *Housing of Wage Earners.*

VELÁZQUEZ, FEDERICO, Santo Domingo, Dominican Republic.
Paper presented: *Notes on the Commercial and Industrial Development of the Dominican Republic.*

VELOZ GOITICOA, NICOLÁS, Caracas, Venezuela, South America.
Honorary Member.
Paper presented: *Organization and Functions of the Finances of the United States of America and the United States of Venezuela.*

VERRILL, CHARLES H., Department of Labor, Washington, D. C.
Delegate—Department of Labor.

VIDAL Y FUENTES, ALFREDO, Montevideo, Uruguay, South America.
Member Cooperating Committee, Uruguay.
Paper presented: *Morbidity and contagious infections mortality in Uruguay.*

VIEITES, MOISÉS A., Member of the Bar of Habana, Habana, Cuba.
Official Delegate of Cuba.
Paper presented: *Criminal Law and Procedure with Special Reference to the Scope and Limits of Jury Trials.*

VILLALÓN, JOSÉ RAMÓN, Secretary of Public Works, Habana, Cuba.
Official Delegate of Cuba.
Delegate—Cuban Engineering Society.
Honorary Chairman of Section V.
Member Cooperating Committee, Cuba.

VILLAREAL, FEDERICO, Lima, Peru, South America.
Member Cooperating Committee, Peru.

VILLAVICENCIO, ALEJANDRO, Surveyor, Quito, Ecuador, South America.
Member Cooperating Committee, Ecuador.

VINCENT, GEORGE E., President, University of Minnesota, Minneapolis, Minn.
Member of Committee, Subsection 5, Section IV.

VITERI LAFRONTE, HOMERO, Quito, Ecuador, South America.
Member Cooperating Committee, Ecuador.

VOGELSTEIN, L., Metal Merchant, 42 Broadway, New York, N. Y.
Paper presented: *Buying and Selling of South American Nonferrous Metals.*

VOORHEES, J. F., United States Weather Bureau, Knoxville, Tenn.
Delegate—University of Tennessee.
Paper presented: *Climatic Control of Cropping Systems and Farm Operations.*

VOULMINOT, ALBERTO, Avenida General Rondeau 2027, Montevideo, Uruguay, South America.
Delegate—American International University Bureau.

WADDELL, J. A. L., 934 Wyandotte Street, Kansas City, Mo.
Paper presented: *Vertical Lift Bridges.*

WAGNER, H. A.
President, Consolidated Gas, Electric Light and Power Company, Baltimore, Md.
Delegate—National Electric Light Association.

WAGNER, J. HENRY, Department of Labor, Washington, D. C.
Alternate—Bureau of Naturalization, Department of Labor.

WAITE, F. C., Western Reserve University, Cleveland, Ohio.
Paper presented: *The Amount of Knowledge of Biological Science Essential for the Student Entering Medical School.*

WALCOTT, CHARLES D., Secretary, Smithsonian Institution, Washington, D. C.
Official Delegate of the United States.
Delegate—
Smithsonian Institution.
United States National Museum.

WALCUTT, CHARLES C., War Department, Washington, D. C.
Delegate—Bureau of Insular Affairs of the War Department.

WALES, GEORGE R., United States Civil Service Commission, Washington, D. C.
Delegate—Middlebury College.

WALKER, PERCY H., Bureau of Standards, Washington, D. C.
Paper presented: *Rubber.*

WALKER, W. R., Metallurgist, New York, N. Y.
Member of Committee, Subsection 2, Section VII.

WALL, J. S., 2017 Columbia Road, Washington, D. C.
Alternate—Medical Society of the District of Columbia.

WAMBAUGH, EUGENE, Professor Harvard Law School, Cambridge, Mass.
Delegate—Association American Law Schools.
Chairman of Committee, Subsection 3, Section VI.
Member of Committee, Subsection 2, Section VI.
Addressed Subsection on Jurisprudence of Section VI.

WARBURG, PAUL, Federal Reserve Board, Treasury Department, Washington, D. C.
Alternate—Federal Reserve Board.

WARBURTON, C. W., Secretary, American Society of Agronomy, United States Department of Agriculture, Washington, D. C.
Alternate—American Society of Agronomy.

WARD, A. R., Bureau of Animal Industry, United States Department of Agriculture, Washington, D. C.
Delegate—American Veterinary Medical Association.
Paper presented: *The Prevention and Eradication of Destructive Animal Diseases and the Effect upon Agriculture and the Meat Supply.*

WARD, R. DE C., Professor, Harvard University, Cambridge, Mass.
Paper presented: *The Thunderstorms of the United States as Climatic Phenomena.*

WARREN, G. F., Professor, Department of Farm Management, Cornell University, Ithaca, N. Y.
Alternate—American Farm Management Association.

WARREN, HOWARD C., Professor, Princeton University, Princeton, N. J.
Delegate—American Psychological Association.

WASHINGTON, THOMAS, Navy Department, Washington, D. C.
Delegate—Bureau of Navigation, Navy Department.

WATERS, H. J., President, Kansas State Agricultural College, Manhattan, Kans.
Delegate—Kansas State Agricultural College.
Member of Committee, Subsection 5, Section III.
Papers presented:
How an Animal Grows.
A National System of Agricultural Education.

WATROUS, GEORGE D., 261 Bradley Street, New Haven, Conn.
Delegate—Yale University Law School.
Papers presented:
The Effect on American Public Law of Our Written Constitutions.
Constitutional Provisions Making Treaties Law.

WATROUS, RICHARD B., Secretary, American Civic Association, Union Trust Building, Washington, D. C.
Alternate—American Civic Association.
Paper presented: *City Planning Administration.*

WATTS, ARTHUR S., Ohio State University, Columbus, Ohio.
Delegate—American Ceramic Society.
Paper presented: *Ceramics and Cement Technology.*

WEAD, EUNICE, The Northumberland, Washington, D. C.
Delegate—Association of Collegiate Alumnæ.

WEBBER, H. J., Director, Citrus Station, University of California, Berkeley, Cal.
Member of Committee, Subsection 6, Section III.
Paper presented: *The Institute of Tropical Agriculture on the Pacific Coast.*

WEBSTER, F. M., Department of Agriculture, Washington, D. C.
Delegate—Entomological Society of America.

WEED, WALTER HARVEY, Geologist and Mining Engineer, 29 Broadway, New York, N. Y.
Paper presented: *The Copper Mining Industry in the Americas.*

WEIDA, GEORGE F., Kenyon College, Gambier, Ohio.
Alternate—Kenyon College.

WEIL, RICHARD, Cornell University Medical College, 970 Park Avenue, New York, N. Y.
Delegate—American Association of Immunologists.
Papers presented:
Application of Chemistry to Cancer Problems.
Anaphylatoxin and the Mechanism of Anaphylaxis.

WEINZIRL, JOHN, Professor, University of Washington, Seattle, Wash.
Paper presented: *A Safe and Sane Milk Supply.*

WEISSE, FANEUIL S., 34 Nassau Street, New York, N. Y.
Alternate—Association of Life Insurance Medical Directors.

WELCH, WILLIAM H., President of National Academy of Sciences, Baltimore, Md.
Official Delegate of the United States.
Delegate—
Council of Medical Education.
National Academy of Sciences.
Rockefeller Institute for Medical Research.
Honorary Vice Chairman of Executive Committee.

WELD, IVAN C., 1116 Connecticut Avenue, Washington, D. C.
Delegate—Official Dairy Instructors.

WELD, L. D. H., Professor, Yale University, New Haven, Conn.
Paper presented: *Trading in Grain Futures.*

WELLS, EDWARD L., United States Weather Bureau, Boise, Idaho.
Paper presented: *The Economic Aspects of Climatology.*

WELLS, F. C., Equitable Life Insurance Company, New York, N. Y.
Delegate—Association Life Insurance Medical Directors.

WELLS, PHILIP P., Attorney, Conservation Commission, Washington, D. C.
Member of Committee, Subsection 3, Section III.

WELLS, WILLIAM C., Pan American Union, Washington, D. C.
Delegate—Pan American Union.

WENDT, E. F., Member of Engineering Board, Interstate Commerce Commission, Washington, D. C.
Delegate—Engineers' Society of Western Pennsylvania.

WENNER, FRANK, Bureau of Standards, Washington, D. C.
Delegate—Knox College.

WERTHEIM, EDWARD L., West Side Young Men's Christian Association, New York City, N. Y.
Paper presented: *The Proper Use of Business Experts from the Business World in Class Instruction in Domestic and Foreign Commerce (Symposium).*

WESCOTT, N. P., Onley, Va.
Paper presented: *Truck Crop Marketing on a Large Scale under Co-operation Principles.*

WEST, J., Montevideo, Uruguay, South America.
Paper presented: *Organization of the European Foreign Trade with Uruguay, with Special Reference to Manufactured Goods.*

WEST, PERRY L., National Brick Manufacturers' Association, 1429 New York Avenue, Washington, D. C.
Delegate—National Brick Manufacturers' Association.

WHEELER, A. W., Chief Medical Section, Office of Indian Affairs, Washington, D. C.
Alternate—United States Indian Office.

WHEELER, BENJAMIN IDE, President University of California, Berkeley, Cal.
Delegate—University of California.
Member of Committee, Subsection 3, Section IV.

WHEELER, CHARLES V., Superintendent Washington Steel and Ordnance Company, Washington, D. C.
Delegate—Engineers' Society of Western Pennsylvania.

WHEELOCK, LUCY, 134 Newbury Street, Boston, Mass.
Address before Subsection 1, "Elementary Education," of Section IV.

WHELESS, THOMAS H., 219 Market Street, Newark, N. J.
Paper presented: *Motor Driven Vehicles and Motor Railroad Cars as a Factor in Transportation.*

WHELPLEY, H. M., Missouri Historical Society, St. Louis, Mo.
Member of Committee, Subsection 2, Section I.

WHILAR, AGUSTÍN T., Lima, Peru, South America.
Paper presented: *How Can a Nation Prepare in the Most Effective Manner its Young Men for a Business Career That is to be Pursued at Home or in a Foreign Country?*

WHIPPLE, GEORGE C., Harvard School of Engineering, Cambridge, Mass.
Paper presented: *Municipal Water Supply.*

WHITAKER, MILTON G., Professor, Columbia University, New York City, N. Y.
Paper presented: *Chemical Engineering.*

WHITE, ANDREW D., President Emeritus Cornell University, Ithaca, N. Y.
Member of Committee, Subsection 2, Section VI.

WHITE, DAVID, Chief Geologist United States Geological Survey, Washington, D. C.
Member of Committee, Subsection 3, Section VII.
Paper presented: *Organization and Cost of Geological Surveys.*

WHITE, G. C., United States Office of Markets and Rural Organization, Department of Agriculture, Washington, D. C.
Paper presented: *Improved Transportation Service for Perishable Products.*

WHITE, HENRY, 1624 Crescent Place, Washington, D. C.
Member of Committee, Subsection 1, Section VI.

WHITE, I. C., State Geologist, Morgantown, W. Va.
Delegate of Association of American State Geologists.
Member of Committee, Subsection 3, Section VII.
Paper presented: *The Coals of Brazil.*

WHITE, JOHN, Professor, Rose Polytechnic Institute, Terre Haute, Ind.
Alternate—Rose Polytechnic Institute.

WHITE, JOSEPH H., United States Public Health Service, Washington, D. C.
Delegate—American Society of Tropical Medicine.

WHITE, LAURA A., Professor, University of Wyoming, Laramie, Wyo.
Alternate—University of Wyoming.

WHITE, WILLIAM CHARLES, Associate Professor, Pittsburgh University, Pittsburgh, Pa.
Delegate—National Association for the Study and Prevention of Tuberculosis.
Paper presented: *The Etiology and Prevention of Tuberculosis from the Sociological Point of View.*

WHITE, WILLIAM A., Superintendent, Government Hospital for the Insane, Washington, D. C.
Delegate—American Institute of Criminal Law and Criminology.
Paper presented: *Etiology and Prevention of Insanity from the Sociological Point of View.*

WHITEHEAD, JOHN B., Professor, Johns Hopkins University, Baltimore, Md.
Chairman of Committee, Subsection 3, Section V.
Member of Committee, Subsection 6, Section IV.
Member of Committee, Section V.

WHITMORE, EUGENE R., Army Medical School, Washington, D. C.
Chairman, Subsection E, Section VIII.
Secretary of Section VIII.

WHITNEY, MILTON W., Bureau of Soils, Department of Agriculture Washington, D. C.
Delegate—Bureau of Soils, Department of Agriculture.

WIDTSOE, JOHN A., President, Agricultural College of Utah, Logan, Utah.
Delegate—Agricultural College of Utah.
Paper presented: *Relation Between Quantity of Irrigation Water Used and Quantity of Crop Produced.*

WIGMORE, JOHN H., Dean of the Law Faculty, Northwestern University, Chicago, Ill.
Member of Committee, Subsection 3, Section VI.
Paper presented: *The International Manifestations of Law—Its Needs and Its Possibilities from the American Standpoint.*

WILBUR, CRESSY L., Director, Division of Vital Statistics, State Department of Health, Albany, N. Y.
Paper presented: *The Federal Registration Service of the United States—Its Development, Problems, and Defects.*

WILDMAN, M. S., Leland Stanford Junior University, Stanford University, Cal.
Delegate—Leland Stanford Junior University.

WILEY, HARVEY W., Good Housekeeping Magazine, Washington, D. C.
Delegate—Association of Official Agricultural Chemists.
Member of Committee, Subsection 4, Section VII.
Papers presented:
The Functions of Foods in Securing National Efficiency.
Alcohol and Drug Prophylaxis.

WILLCOX, WALTER F., Professor, Cornell University, Ithaca, N. Y.
Delegate—American Economic Association.
Paper presented:
The Nature and Significance of the Changes in the Birth and Death Rates in Recent Years.

WILLIAMS, ARTHUR, New York Edison Company, Irving Place and Fifteenth Street, New York, N. Y.
Paper presented: *Cooperation between Public Schools and Organizations of Employers and Employees in Making and Executing Plans for Industrial Education.*

WILLIAMS, R. R., Bureau of Chemistry, United States Department of Agriculture, Washington, D. C.
Paper presented: *On the Chemical Nature of the Vitamines.*

WILLIAMS, THOMAS A., 1705 N Street, Washington, D. C.
Delegate—American Medical Society for the Study of Alcohol and Narcotics.
Paper presented: *The Racial Factor in Delinquency—A Comparative Study of the Mentality of the American Negro.*

WILLIMAN, CLAUDIO, Rector, University of Montevideo, Montevideo, Uruguay, South America.
Member Cooperating Committee, Uruguay.

WILLIS, BAILEY, Professor, Leland Stanford Junior University, Leland Stanford, Cal.
Delegate—National Conservation Association.
Member of Committee, Subsection 3, Section VII.

WILLOUGHBY, C. C., Peabody Museum of American Archæology and Ethnology, Harvard University, Cambridge, Mass.
Member of Committee, Subsection 2, Section I.

WILSON, EDMUND B., Professor, Columbia University, New York, N. Y.
Delegate—Barnard College.
Alternate—Columbia University.

WILSON, GEORGE GRAFTON, Professor, Harvard University, Cambridge, Mass.
Member of Committee, Subsection 1, Section VI.
Paper presented: *The Relation of International Law to National Law in American Countries.*

WILSON, GORDON, 4 East Preston Street, Baltimore, Md.
Delegate—Association of Life Insurance Medical Directors.
Alternate—American Sanatorium Association.

WILSON, PERCY H., Bellevue Court Building, Philadelphia, Pa.
Delegate—Association of American Portland Cement Manufacturers.

WILSON, P. ST. J., Office of Public Roads and Rural Engineering, Department of Agriculture, Washington, D. C.
Delegate—Office of Public Roads and Rural Engineering.

WILSON, W. P., Director, Commercial Museum, Philadelphia, Pa.
Delegate—Commercial Museum, Philadelphia, Pa.
Paper presented: *Special Courses for Commercial Study—Commercial Museum.*

WING, DEWITT C., Breeders' Gazette, Chicago, Ill.
Paper presented: *The Swine Industry—Its Importance in Agricultural Development.*

WINKELRIED, BERTONI A., Ascuncion, Paraguay, South America.
Paper presented: *"El Tambu" and the Destruction of the "Tacuaras" of Paraguay.*

WINSLOW, C. E. A., Professor, Yale University, New Haven, Conn.
Paper presented: *Fresh Air and Ventilation in the Light of Modern Research.*

WINSLOW, E. E., Corps of Engineers, United States Army, 2120 Leroy Place, Washington, D. C.
Member of Committee, Section V.
Paper presented: *Scientific Work of the Corps of Engineers, United States Army.*

WINTON, G. B., 2211 Highland Avenue, Nashville, Tenn.
Paper presented: *Exchange of Teachers Between Mexico and the United States.*

WISSLER, CLARK, Curator, American Museum of Natural History, New York, N. Y.
Delegate—
American Ethnological Society.
New York Academy of Sciences.
American Anthropological Association.
Member of Committee, Subsection 1, Section I.

WITMER, LIGHTNER, Professor, University of Pennsylvania, Philadelphia, Pa.
Delegate—University of Pennsylvania.

WOGLOM, W. H., Crocker Laboratory, Columbia University, New York, N. Y.
Paper presented: *Factors in Immunity to Cancer.*

WOLFE, A. B., University of Texas, Austin, Tex.
Delegate—University of Texas.

WOLFFUGHEL, KURL, Montevideo, Uruguay, South America.
Member Cooperating Committee, Uruguay.

WOOD, F. C., Crocker Laboratory, Columbia University, New York, N. Y.
Delegate—
American Society for Control of Cancer.
American Society for Cancer Research.
Paper presented: *Radium in Experimental Cancer.*

WOOD, HENRY A. WISE, 297 Madison Avenue, New York, N. Y.
Delegate—
American Society of Aeronautic Engineers.
Aero Club of America.

WOOD, THOMAS D., Professor, Columbia University, New York, N. Y.
Paper presented: *How May the School Be Made an Effective Health Agency?*

WOODHOUSE, HENRY, 297 Madison Avenue, New York, N. Y.
Alternate—
Aero Club of America.
American Society of Aeronautic Engineers.

WOODRUFF, CLINTON R., Secretary, National Municipal League, 703 North American Building, Philadelphia, Pa.
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WOODWARD, ROBERT S., President, Carnegie Institution of Washington, Washington, D. C.
Official Delegate of the United States.
Delegate—Carnegie Institution of Washington.
Member of Executive Committee.
Chairman of Section II.
Chairman Subsection A of Section II.
Address of Welcome at Opening Session of Section II.
Papers presented:
Desirability and Practicability of Extending a Gravimetric Survey Over the South, Central, and North American Areas.
Desirability and Practicability of Covering the South, Central, and North American Areas with a Network of Precise Triangulation.

WOODWARD, WILLIAM C., Health Officer, District of Columbia, Washington, D. C.
Delegate—American Public Health Association.
Paper presented: *Ways and Means of Bringing Matters of Public Health to Social Usefulness.*
(*a*) *Sources of information, statistics, health reports, municipal and State surveys.*
(*b*) *Preparation of legislative measures—committee hearings, etc.*
(*c*) *Publicity avenues and methods, use of existing organizations, new organizations, press, etc.*

WOODWORTH, J. BACKUS, Geological Museum, Cambridge, Mass.
Delegate—Seismological Society of America.

WOODWORTH, PHILIP B., Lewis Institute, Chicago, Ill.
Delegate—Western Society of Engineers.

WOOLLEY, R. W., Director, United States Mint, Washington, D. C.
Paper presented: *Assaying in the United States Mint Service.*

WOOLMAN, MARY SCHENCK, National Society for the Promotion of Industrial Education, 140 West Forty-second Street, New York, N. Y.
Paper presented: *Training Girls and Women for Trades and Industries.*

WOOLSEY, T. S., Professor, Yale University, New Haven, Conn.
Delegate—Yale University.
Member of Committee, Subsection 1, Section VI.
Paper presented: *What Means Should Be Provided and Procedure Adopted for Authoritatively Determining Whether The Hague Conventions, or Other General International Agreements, or the Rules of International Law Have Been Violated? In Case of Violations, What Should Be the Nature of the Remedy and How Should It Be Enforced?*

WRIGHT, J. BUTLER, Division of Latin-American Affairs, Department of State, Washington, D. C.
Delegate—Division of Latin-American Affairs, United States Department of State.

WULP, WILLIAM C., 104 Pearl Street, New York, N. Y.
Delegate—American Exporters and Importers' Association.

YÁNES, FRANCISCO J., Assistant Director Pan American Union, Washington, D. C.
Delegate—Pan American Union.

YBAR, CARLOS, Professor, School of Medicine, Santiago, Chile, South America.
Paper presented: *Should Universities and Colleges Supported by Public Funds Be Controlled by Independent and Autonomous Powers, or Should They Be Controlled Directly by Central State Authority?*

YBARRA, ANDRÉS, Director National Association of Agriculturists, Caracas, Venezuela, South America.
Honorary Member.
Paper presented: *Abundant Vegetable Products in Venezuela for Dyeing and Tanning.*

YEATMAN, POPE, Mining Engineer, 120 Broadway, New York, N. Y.
Delegate—American Mining and Metallurgical Society of America.
Paper presented: *Development Work and Mining Operations of the Chile Exploration Company.*

YERKES, LEONARD A., Joseph Bancroft & Sons Company, Wilmington, Del.
Alternate—Wilmington Chamber of Commerce.

YOUNG, ALLYN A., Professor, Cornell University, Ithaca, N. Y.
Alternate—
American Economic Association.
Cornell University.

YOUNG, B. E., Vanderbilt University, Nashville, Tenn.
Delegate—Association of Colleges and Preparatory Schools of the Southern States.

ZALDÍVAR, His Excellency RAFAEL, Envoy Extraordinary and Minister Plenipotentiary of El Salvador to the United States, Legation of El Salvador, 1800 Connecticut Avenue, Washington, D. C.
Chairman of the Official Delegation of El Salvador.
Delegate—
Rosales Hospital.
School of Pharmacy, Chemistry, and Medicine of the University of El Salvador.

ZANER, C. P., National Commercial Teachers' Federation, Columbus, Ohio.
Delegate—National Commercial Teachers' Federation.

ZANOTTI-CAVAZZONI, L., Asuncion, Paraguay, South America.
Paper presented: *Autosangotherapy in Leprosy.*

ZIMMER, M. L., Director, Astronomical Observatory of the Argentine Nation, Cordoba, Argentina, South America.
Paper presented: *Investigations of the Pivots of the 190 m. m. Meridian Circle of the Argentine National Observatory at Cordoba.*

ZON, RAPHAEL, United States Forest Service, Washington, D. C.
Delegate—Society of American Foresters.
Papers presented:
South American Forest Resources and Their Relation to the World's Timber Supply.
Forest Problems and Economic Development in South America.

ZORRILLA DE SAN MARTÍN, JUAN, Montevideo, Uruguay, South America.
Member Cooperating Committee, Uruguay.

ZÚÑIGA, ANDRÉS M., Managua, Nicaragua, Central America.
Paper presented: *Purposes of High-School Education.*

INDEX.

[This index refers only to the Final Act and interpretative commentary thereon, pp. 1–154. See Table of Contents for the appendices.]

Academy of International Law, 105.
Adrian, 82.
Aeronautics, 22.
Aeroplanes, 25, 134.
Africa, 60, 132.
Agencies of research, 17.
Agriculture, 20, 60, 62, 72, 122.
Agricultural education, 21.
Agricultural production, information regarding, 31, 78.
Agricultural products, marketing and distribution, 20.
Aide-mémoire, 64, 65.
Aims and purposes, 16, 44.
Aims and purposes of Section VII, 123.
Airships, 22.
Alaska, 18.
Alcoholism, suppression of, 39, 138.
Alexandria, 82.
Aluminum conductors, 22.
Álvarez, Alejandro, 111, 113, 140, 150.
Alzamora, Isaac, 13.
American authors, 32, 87, 88.
American committee on radio communication, 28, 62.
American Economic Association, 135.
American Historical Association, 135.
American history, chairs of, 79.
American Institute of Electrical Engineers, 58.
American Institute of International Law, 36, 90, 110, 111, 112, 113, 118.
American Journal of International Law, 93.
American Mining Congress, 24.
American Plant Protection Congress, 30, 77.
American Republics, 7, 16, 26, 28, 29, 30, 31, 33, 35, 36, 37, 38, 39, 40, 44, 47, 50, 51, 52, 59, 60, 62, 66, 68, 71, 73, 77, 78, 84, 86, 88, 90, 93, 106, 111, 112, 118, 127, 128, 133, 138, 147, 150.
American Society of Civil Engineers, 58.
American Society of International Law, 93.
American Society of Mechanical Engineers, 58.
Anaphylaxis, 24.

Anelzar, Roberto, 9, 41, 49.
Andara, José L., 43, 49.
Anderson, Luis, 113.
Animal diseases, 20.
Animal industry, 19, 75.
Antelope, case of the, 116.
Anthropology, 17, 52, 53.
Anthropology, museums of, 17.
Anthropological sciences, 17.
Anthropometric instruments, 17.
Applied chemistry, 24, 121, 124.
Arbitral tribunals, 33, 93, 97.
Arbitration, 33, 93.
Arc of meridian, Peruvian, 56.
Archeological treasures, safeguarding of, 145.
Archeological missions, 146.
Archeology, 17.
Archeology, research in the field of, 27, 52, 55.
Archeology, study of, 146.
Archeology, uniform laws relating to, 26, 51.
Architectural societies, Pan American federation of, 32, 87.
Architecture, 87.
Argentina, 23, 24, 43, 77, 150.
Argentina, official delegates of, 7.
Arid lands, reclamation of, 28, 29, 73.
Art and industry, 54.
Article 1: Uniform laws relating to archæology, 26, 51.
Article 2: Research in the field of archæology, 27, 52.
Article 3: Geodetic, magnetic, and gravimetric measures, 27, 55.
Article 4: International triangulation and congress of cartography and geography, 27, 57.
Article 5: Use of the metric system, 28, 59.
Article 6: Pan American meteorological service, 28, 60.
Article 7: Uniform railway gauge, 28, 61.
Article 8: Radio communication, 28, 62.
Article 9: Forest conditions and utilization, 28, 62.
Article 10: Use and regulation of water supply, 29, 72.
Article 11: Reclamation of arid lands, 29, 73.
Article 12: Live-stock sanitary service, laws and survey of communicable diseases, 29, 74.
Article 13: American Plant Protection Congress, 30, 77.
Article 14: Agricultural production, information regarding, 31, 78.
Article 15: Study of lives of liberators and statesmen, 31, 78.
Article 16: Establishment in universities of chairs of American history, 31, 79.
Article 17: Teaching of Spanish and English in American schools and colleges, 31, 80.
Article 18: Study of sociology, 31, 81.
Article 19: Exchange of educators and students, 31, 82.
Article 20: Pan American federation of architectural societies, 32, 87.
Article 21: Pan American Library, 32, 87.

Article 22: Pan American Union department of education, 32, 89.
Article 23: Bibliography of international law and related subjects, 32, 92.
Article 24: Necessity for teaching international law and related subjects, 33, 98.
Article 25: Manner of teaching international law, 34, 100.
Article 26: The Hague Academy of International Law, 35, 104.
Article 27: Establishment of professorships of international law in colleges and universities, 35, 106.
Article 28: Establishment of courses of instruction in law schools, 35, 107.
Article 29: Instruction in international law by visiting professors, 36, 108.
Article 30: Study of international law for diplomatic and consular services, 36, 109.
Article 31: Study of international law as preparation for business, 36, 109.
Article 32: Emphasis on American problems and doctrines in teaching international law, 36, 110.
Article 33: American Institute of International Law, 36, 111.
Article 34: Special study of American constitutions, laws, and institutions, 36, 118.
Article 35: Comparative study of judicial institutions, 37, 119.
Article 36: Exchange of publications by the bar associations, 37, 120.
Article 37: Compilation of mining laws and uniformity of mining statistics, 37, 121.
Article 38: Study of drugs, etc., at place of origin, 37, 127.
Article 39: Eradication of malaria, 38, 129.
Article 40: Eradication of yellow fever, 38, 130.
Article 41: White-slave trade, 38, 131.
Article 42: Uniformity of standards of weights, etc., and of customs regulations, etc., 38, 133.
Article 43: Uniformity in collection, classification, and presentation of commercial and demographic statistics, 39, 137.
Article 44: Study of systems of taxation, 39, 137.
Article 45: Subordination of economic interests in revenue tax on alcohol, 39, 138.
Article 46: Study of the monetary systems, 39, 139.
Article 47: Establishment of a Pan American Intellectual Union, 39, 139.
Article 48: Lima, meeting place of Third Pan American Scientific Congress, 40, 151.
Article 49: Transmission of the Final Act, 40, 153.
Articles of organization and rules, 46.
Asia, 110, 132.
Assouan Dam, 67.
Astronomy, 18, 55.
Australia, 67.
Austria-Hungary, 132.
Ayala, 103.
Ayala, Eusebio, 13, 41, 43, 49, 50.
Awards of mixed commissions, 33, 93, 97.

Bacon, Robert, 64, 65, 66, 113.
Bar associations, 37, 120.
Barrett, John, 3, 14, 41, 43, 46, 47, 48.
Belgium, 132.
Bello, 116, 117.
Beriberi, 25.
Bibliography of America, 143.

Bibliography of international law and related subjects, 32, 92, 95.
Biology, 55.
Bixby, William H., 14, 46.
Bolivar, 78.
Bolivia, 24, 43.
Bolivia, official delegates of, 8.
Bonds, 26.
Bouguer, 56.
Brazil, 24, 43, 131, 132, 150.
Brazil, official delegates of, 8.
Bridges, 21.
Buenos Aires, 43, 82, 85, 86, 89, 136.
Buenos Aires, province of, 67.
Buenos Aires trade-mark convention, 26.
Bureau of mines, 24.
Bureau of standards, 22.
Butler, Nicholas Murray, 83, 98.

Cabinet and dyewoods, 70.
Cadastral surveys, 56.
Calderon, Ignacio, 8.
Calendar, invention and use of, 17, 55.
Calvo, 116, 117.
Canada, 50, 63, 64, 71.
Canals, 21, 67.
Cancer research, 24.
Carnegie Endowment for International Peace, 113, 149.
Cartography, 57.
Cartography and geography, Congress of, 27.
Census, 39, 137.
Census statistics, 26.
Central America, 21, 25, 26, 71, 133.
Central electric power systems, 70.
Céspedes, Carlos Manuel de, 10, 41, 43, 49.
Chairs of American history, establishment of, 31.
Chairman of the Argentine delegation, 139, 143, 147.
Chairman of the Brazilian delegation, 139, 143, 147.
Chairman of the Chilean delegation, 139, 143, 147.
Chemistry, 24.
Chicago Stock Yards, 76.
Chile, 24, 43, 44, 124, 150.
Chile, official delegates of, 8.
Chile, delegation of, 40.
Chinese Exclusion Act, 116.
Chronocyclegraph, 22.
Citrus canker, 67.
City of Mexico, 136.
Claxton, Philander P., 14, 46.
Climatology, 18, 55.

Codes of law, 37, 120.
Coeducation, 20.
Colombia, 24, 43.
Colombia, official delegates of, 9.
Columbia, University, 24.
Commerce, 25, 134.
Commercial development of South and Central America, 26.
Commercial education, 21.
Commercial and demographic statistics, uniformity in, 25, 39, 137.
Commission of American Jurists, 111.
Commission on unification of standards, measures, etc., 136.
Commissioner of Education of the United States, 45.
Committee of organization of Third Pan American Scientific Congress, 40, 152.
Committees of the nine sections of the Congress, 309.
Committee on mining statistics, 37, 121, 126.
Committee on promotion of the use of standard specifications and of standard methods of sampling and testing, 129.
Committee on recommendations, 49.
Committee on resolutions, 49.
Committee on the Final Act, 50.
Comparative catalogues, publication of, 143.
Comparative study of judicial institutions, 37, 119.
Competitive marketing of agricultural products, 67.
Compilation of mining laws, 37.
Concrete, 22.
Condamine, 56.
Confederation of libraries of the continent, 144.
Conference on customs regulations, 136.
Conference of teachers of international law, 93, 94.
Conflict of laws, 119.
Congress of cartography and geography, 27, 57.
Conservation, The economics of, 19.
Conservation commissions, 63.
Conservation conference, 66.
Conservation of animal industry, 19.
Conservation of forests, 19, 69.
Conservation of human life, 19.
Conservation of mineral resources, 19, 24.
Conservation of natural resources, agriculture, irrigation, and forestry, 62.
Conservation of plant industry, 20.
Conservation of surface and underground waters, 29.
Conservation of water for power, 19, 71.
Constitution of American Institute of International Law, 110.
Constitutions, laws, and institutes, special study of, 36, 118.
Constitutions, laws, and institutions, knowledge of, 121.
Consular service, 36, 109.
Contents, 5.
Convention for suppression of obscene publications, 132.
Convention for suppression of white-slave traffic, 132.

Cooperating committees in Republics other than the United States, 323.
Cooperation, 20.
Cooperation of nations, 83.
Cooperative marketing associations, 20.
Cooperative research work, 30.
Córdova, Gonzalo S., 11, 41.
Costa Rica, 43.
Costa Rica, official delegates of, 10.
Cox's criminal cases, 116.
Cranch's Reports, 117.
Credits, extension of, 26.
Criminal law, 23.
Critical editions, publication of, 144.
Cuba, 24, 43.
Cuba, official delegates of, 10.
Cuerva Márquez, Carlos, 43, 49.
Customs Regulations, uniformity of, 38, 133, 136.

Dairy industries, 19.
Declaration of Independence of the United States, 114, 115, 116.
Declaration of the Rights and Duties of Nations, 114, 115.
Delegates of the Congress, 48, 293, 309, 323, 331.
Democracy, 94.
Demographic statistics, uniformity in, 39, 137.
Department of Agriculture of the United States, 128.
Department of the Interior, 128.
Department of Commerce, 128.
Denmark, 132.
Diseases of animals, 20, 29, 30, 74, 76.
Diseases, infectious, 25.
Diseases, nutritional, 25.
Deustua, Alejandro, 41, 43, 49, 152.
Diaz Ossa, Belisario, 127
Digest of international law, 33, 92, 95.
Diplomacy, 33, 98, 105.
Diplomatic and consular services, study of international law for, 36, 109.
Diplomatic correspondence, 33, 96.
Diplomatic incidents, 103, 109.
Director of the Pan American Union, 45.
Disposal of refuse, 25.
Doctrines of American origin, 110.
Dodson's Reports, 116.
Dominican Republic 43.
Dominican Republic, official delegates of, 11.
Dominici, Santos A., 15, 41, 49.
Droit international Théorique et Pratique, 116, 117.
Drugs, study of, 37, 127.
Dry farming, 72.
Ducci Kallens, José, 127.
Duties, obligations, and rights of States, 98
Dyestuffs, 24, 125.

Economic geology, 24, 121, 123.
Economics of conservation, 19.
Economic plants, study of, 37, 127.
Economic theory, 66.
Ecuador, 24, 43.
Ecuador, official delegates of, 11.
Education, 20.
Education, elementary, 21.
Education of the American democracy, 141.
Education of women, 21.
Education, Pan American Union Department of, 32, 89, 90.
Education, secondary, 21.
Education, technical, 21.
Education, university, 21.
Education in forestry, 19.
Educational institutions, 293.
Educational progress in Pan America, 89, 91.
Educational problems, study of, 89, 91.
Election of officers, 152.
Electric energy, application of, 70.
Electricity, 22.
Electrochemical industries, 19.
Engineering, 21.
Engineering, civil, 21.
Engineering, electrical, 22, 57.
Engineering, marine, 22.
Engineering, mechanical, 22, 57.
Engineering, municipal, 57.
Engineering, sanitary, 57.
Engineering education, 21.
Engineering nomenclature, 22.
Engineering terms, compilation of, 58.
English, 32, 37, 58, 79, 88, 89, 121.
English, teaching of Spanish and, 31, 80.
Eradication of malaria, 38.
Eradication of yellow fever, 38.
Ethnology, 17, 54.
Esthetic arts, 54.
Establishment of chairs of American history, 31, 79.
Eugenics, 17.
Europe, 66, 110, 132.
European colonies in America, 38, 130.
European War, 25, 26, 134, 137, 140.
Exchange, case of Schooner, 117.
Exchange of educators and students, 31, 82.
Exchange of publications, etc., 143.
Exchange of publications by the Bar Association, 37, 120.
Exchange professors, 83, 84, 85.
Executive Committee of the Congress, 3, 43, 47, 48, 50, 129, 139, 152.
Executive Committee of the United States, 3, 44, 45, 68, 309.

Executive officers, 40, 309.
Experiment station work, 20.
Experts in teaching of international law and diplomacy, use of, 98.
Explosives, 24.

Farm mortgage loans, 20.
Federation of architectural societies, 87.
Final Act, 3, 26, 43, 44, 50, 68, 123, 147, 151, 153.
Final Act, transmission of, 40, 153.
Finance, 26, 134.
Financial and industrial problems, 133.
First Pan American Scientific Congress, 7.
Folklore, 17.
Foodstuffs, 24.
Foot-and-mouth disease, 30, 74, 75.
Forest conditions and utilization, study of, 28, 62, 70.
Forest conservation, 19.
Forest education, 69.
Forestry, 19, 62.
Foreword, 3.
Fourth International Pan-American Conference, 85.
France, 132.
French, 32, 37, 58, 81, 88, 89, 121.
French Government, 131.
French Revolution, 140.

Gama, Domicio da, 8, 41, 43, 48, 142, 145, 147.
Gamio, Manuel, 12, 41, 43, 49.
Garfield, James R., 64.
Geneva, Convention of, 128.
Gentilis, 103.
Geodesy, 18, 55, 57.
Geodetic, magnetic, and gravimetric measures, 27, 55.
Geodetic triangulation, 56.
Geography, 27, 54, 55, 57, 59.
Geology, 24, 55.
Geological surveys, 24, 125.
Germany, 132.
Gipsy moth, 67.
Glyphic records, 17.
Gorgas, William C., 14, 46.
Governmental bureaus, 57, 293.
Governing Council of Pan-American Archæological Union, 140.
Governing Council of Pan-American Library Union, 144.
Governing Council of Pan-American University Union, 142.
Gray, George, 14, 41, 43, 49.
Gray, Justice, 103, 118.
Gravimetric measures, 27, 55.
Gravimetric surveys, 56.

Grazing on public lands, 20.
Great Britain, 132.
Greenwich, 56.
Grey, Earl, 63.
Grotius, 103.
Guatemala, 24, 43.
Guatemala, official delegates of, 12.
Gutiérrez, Alberto, 43, 48, 50.
Gyroscope, 22.

Haiti, 43.
Haiti, official delegates of, 12, 43.
Harvard University, 83.
Habana, 118.
History, 17.
History, teaching of, 78.
Hog cholera, 67.
Holmes, William H., 14, 45, 46.
Honduras, 43.
Honduras, official delegates of, 12.
Honorary members, 331.
Hydroelectric industry, 70.
Hydroplanes, 22.

Industrial education, 21.
Infant mortality, 25.
Inland waterways, 25.
Institutes and laboratories of physics and chemistry, foundation of, 128.
Intellectual Pan Americanism, 26, 40, 80, 139, 150, 151, 154.
Intellectual Pan American Union, 39, 139, 142.
Interchange of ideas among teachers, 89, 92.
Interchange of professors, 85, 89.
Interchange of professors and students, 20, 84, 141.
Interchange of students, 86, 89.
International arbitration, 22.
International association of meteorologists and seismologists, 60.
International Bureau of American Republics, 89.
International Bureau of American Republics, Governing Board of, 85.
International Conference of American States, 89, 90.
International Congress for suppression of adulteration in foods and drugs, 128.
International Congresses of Applied Chemistry, 128.
International law, 22, 92, 95, 98, 112, 120.
International Law, American Institute of, 36, 111.
International law, American problems and doctrines in teaching, 36, 110.
International law, bibliography of, 32, 92.
International law, classics of, 34.
International law, collection of documents on, 93.
International law, manner of teaching, 34, 100.
International law, necessity for teaching, 33, 97.

International law, positive nature of, 34, 100, 101, 103.
International law, private, 37.
International law, professorships of, 35, 106.
International Law, The Hague Academy of, 35, 104, 105.
International law, treatises on, 95.
International law as a science, 106, 108.
International law as preparation for business, 36, 109.
International law as universal, 104.
International law by visiting professors, instruction in, 36, 108.
International law for diplomatic and consular services, 36, 109.
International law in law schools, 35, 107.
International mind, 106.
International policy, 34, 100.
International reporter, 97.
International rights and duties, 94, 95, 103.
International triangulation, 27, 57.
International unity, 84.
Iron and copper ores, conservation of, 125.
Irrigation, 19, 57, 58, 62.
Italy, 132.

Jennings, Hennen, 15, 46.
Joint scientific investigation, 141.
Joint State and Navy Neutrality Board of the United States, 113.
Judicial institutions, comparative study of, 37, 119.
Judicial organization, 23.
Jurisprudence, 23, 37, 101, 119, 120.

Knox, Philander C., 85, 86, 88.

Laboratory conferences, 25.
Lansing, Robert, 112, 113.
Languages of the various tribes, 17.
Latin America, 31, 82, 84, 89, 93.
Latin American Congresses, 44.
Latin American Scientific Conference, Third, 89.
Laodicea, 82.
Law books and publications, 120.
Law of nations, 107.
Law reporter, 97.
Law reports, 33, 93.
Laws regulating general industry, navigation, and commerce, 73.
Learned societies, educational institutions, private organizations, and governmental bureaus, 293.
Liberators and statesmen, study of lives of, 31, 78, 79.
Library information service, 144.
Library shelf markings, interchange of, 144.
Library shelf markings, publication of, 144.
Lick observatory, 18.
Lieber, Francis, 82.

Lima, 40, 151.
Literature of the native tribes, 17.
Lives of liberators and statesmen, 79.
Live stock, 19.
Live stock industries, 19.
Live stock sanitary police, 75.
Live stock sanitary service, 75, 76, 77.
Live stock sanitary service, laws and survey of communicable diseases, 29, 74.
London, Declaration of, 34, 100.
Lunar parallax, 56.

Magnetic measures, 27, 55.
Magnetic observatories, 55.
Magnetic surveys, 18.
Malaria, economic loss due to, 130.
Malaria, eradication of, 38, 129.
Malsch, Carlos, 127.
Marketing and distribution of agricultural products, 20.
Marshall, Chief Justice, 117.
Martens, Pablo, 127.
Mathon, Charles, 12, 41, 43, 49.
Measures, geodetic, magnetic and gravimetric, 27, 55.
Medical education, 21.
Meeting place of Congress, manner of selecting, 152.
Members of the Congress, 16, 44, 157, 331.
Members of societies, institutions, and committees, and writers of papers, 336.
Méndez, Joaquín, 12, 41, 43, 49.
Mental hygiene, 25.
Meridian arcs and parallels, 59.
Mexico, 24, 43, 56, 63, 64.
Mexico, official delegates of, 12.
Mexican law, 23.
Metallurgy, 24, 121.
Metallurgical methods, 125.
Meteorology, 18, 55, 60.
Meteorological service, Pan American, 28, 60.
Meteorological data, 18.
Metric system, use of, 28, 59.
Mine accidents, 19, 24.
Mineral resources, 24, 68, 123.
Mine-rescue work, 19.
Mines, quarries, and wells, products of, 68.
Mining, 24, 121, 122.
Mining costs, 24.
Mining laws, compilation of, 37, 121.
Mining laws, standardization of, 24, 125, 126.
Mining methods, 19.
Mining, quarrying, and drilling, improvements in, 68.
Mining statistics, uniformity of, 37, 121, 126.

Ministry of Public Instruction for Pan America, 91, 92.
Monetary system, study of the, 30, 139.
Monetary units, common, 26, 135.
Montevideo, 43.
Montevideo convention, 74, 77.
Morales, Eusebio, 13, 41, 43, 49.
Morality and public health, 133.
Motor-driven vehicles, 25.
Mountain forests, 69.
Mount Wilson solar observatory, 18.
Mourgues, Luis E., 127.

National Conservation Commission, 63.
National forest policy, 19.
National educational museums, 52.
National policy, 33, 93.
Natural resources, 62, 63, 135.
Natural resources of the world, inventory of, 65.
Navigation, 58, 60, 72.
New England, 56.
Newfoundland, 64.
New York, 58, 82, 135.
Netherland Government, 64.
Nicaragua, 43.
Nicaragua, official delegates of, 13.
Nile Valley, 67.
Nitrate industry, 24, 124.
Nomenclature, 22.
North America, 18, 21, 22, 25, 64, 88, 133.
Norway, 132.

Observatory of Harvard University, 56.
Observatories of Argentina, 56.
Official delegates, 7.
Official delegates signatory, 41, 44.
Oppenheim, 105.
Ore dressing, 24.
Organization of the Congress, 45, 155.
Orient, the, 66.
Origin of languages, 54.
Origin of man, 17, 53.

Paints, 24
Paquete Habana, case of, 103, 106, 118
Panama, 43
Panama, official delegates of, 13.
Panama Canal, 20, 133.
Pan America, 36, 84, 85.
Pan Americanism, 92, 145, 149.
Pan American Archeological Union, 139, 145, 146, 148, 151.

Pan American Archeological Union, Director and Secretary General of, 146.
Pan American Committee on Uniform Railway gauge, 61.
Pan American Conference, Second, 136.
Pan American Conference, Third, 89, 117, 136.
Pan American Conference, Fourth, 136.
Pan American Congresses, 41.
Pan American Conservation Conference of Natural Resources, 64.
Pan American Intellectual Union, 39, 140, 145, 148, 149, 150, 151.
Pan American Department of Education, 89.
Pan American Federation of Architectural Societies, 32.
Pan American Financial Conference, 135.
Pan American Library, 32, 87.
Pan American Library Union, 139, 143, 144, 145, 148, 151.
Pan American Library Union, Director and Secretary General of, 145.
Pan American Meteorological Service, 28, 60.
Pan American Scientific Congress, First, 7, 28, 32, 43, 45, 46, 57, 60, 89, 127, 129, 152.
Pan American Scientific Congress, Second, 3, 7, 26, 43, 44, 55, 57, 58, 66, 75, 112, 127, 128, 151, 152.
Pan American Scientific Congress, Third, 40, 120.
Pan American Topics, 25, 135, 136.
Pan American Union, 20, 32, 39, 89, 90, 111, 129, 139, 140, 141, 142, 143, 145, 146, 147, 148, 149.
Pan American Union, Governing Board of, 111, 112, 129, 147.
Pan American Society of Physics and Chemistry, 128.
Pan American Union Department of Education, 32.
Pan American University Union, 139, 141, 147, 148, 151.
Pan American University Union, Director and Secretary General of, 142.
Paraguay, 43.
Paraguay, official delegates of, 13.
Paris, 131.
Paris, Treaty of, 34, 100, 102.
Patagonia, 18, 56.
Pathology, 17.
Peace Palace of The Hague, 35, 104, 106.
Peace propaganda, 33, 101.
Pellagra, 25.
Pena, Carlos M. de, 15, 41, 43, 49.
Peñaherrera, Victor Manuel, 43, 49.
Pérez Perdoma, Armando, 11, 41, 43, 49.
Permanent International Court of Arbitration, 83, 106.
Peru, 19, 24, 40, 43, 151.
Peru, official delegates of, 13.
Petroleum, conservation of, 125.
Pezet, Federico A., 13, 41.
Pharmaceutical products, 24.
Philippi, Julio, 41, 43, 48, 49, 50.
Philippine Islands, 19.
Phillips, William, 15, 40.
Phosphate, 24.

Physical anthropology, 17.
Piers and quays, 58.
Pinchot, Gifford, 64.
Pinto, Eduardo J., 41, 43, 49.
Plant diseases, 67, 77.
Plant quarantine, 20.
Plant Protection Congress, American, 30, 77.
Plenary sessions, 163.
Pleuropneumonia, 30, 74.
Polemon, 82.
Political and social sciences, 140.
Political economy, 149.
Port charges, 38.
Portugal, 132.
Portuguese, 32, 37, 58, 81, 88, 89, 121.
Poultry industry, 19.
Prado y Ugarteche, Javier, 40, 151.
Pre-Colombian Americana, 17.
Preliminary program, 123, 124.
Preparation for business, 36, 109.
Preparatory committee of the Congress, 47, 48, 50, 152.
President of the Congress, 47, 111, 113, 114.
Principios de Derecho de Jentes, 116, 117.
Private organizations, 293.
Problems of private international law, 119.
Problems of social institutions, 54.
Professorships of international law, 106, 108.
Program of the Congress, 48, 167.
Project for the creation of a Pan-American Archeological Union, 143.
Project for the creation of a Pan American Library Union, 143.
Project for the creation of a Pan American University Union, 140.
Prophylaxis, 25.
Protozoa, 25.
Publications by the bar associations, exchange of, 37.
Publication of works on agriculture, 78.
Publication of works on education, 89.
Public buildings and grounds, 22.
Public health, 25, 127.
Public law, 23, 120.
Public parks and buildings, 57.
Public ownership of forest resources, 69.
Public utilities, 25, 134.

Queen's Bench Division, 116.
Quesado, Ernesto, 7, 41, 43, 49, 50, 140, 142, 145, 147, 150.

Radio communication, 28, 62.
Radio telegraphy, 22.
Radium, 24.

Reclamation, 57.
Reclamation of arid lands, 20, 73.
Reclamation, sanitation, and the supply and use of water, 22.
Recommendation, 49.
Regina v. Dudley, case of, 116.
Regional aspect of scientific inquiry, 149.
Religion, 17.
Remarks of chairman of Section VII, 122.
Republic of letters, 150.
Research in archeology, 51, 52.
Resolution, 49.
Resolution, first sectional (Section III) 68.
Resolution, second sectional (Section III) 69.
Resolution, third sectional (Section III) 69.
Resolution, fourth sectional (Section III) 70.
Resolution, fifth sectional (Section III) 70.
Resolutions and recommendations, 26, 40, 48, 50.
Rights and duties of neutrals, 113.
Rights of national jurisprudence, 114.
Rinderpest, 30, 74.
Ringe, Henry Ralph, 43, 48.
Rio de Janeiro, 43, 89, 111, 117, 136.
Rivas, Dámaso, 13, 41, 43, 49.
Rome, 82, 119.
Rommel, George M., 15, 45, 46.
Roosevelt, Theodore, 62, 63, 64, 66.
Roosevelt Dam, 67.
Root, Elihu, 93, 95, 111, 113, 117.
Rowe, Leo S., 15, 45, 46, 113.
Rules of the Congress, 158.
Russia, 132.

Safety-first movement, 134.
Salazar, Arturo E., 127.
Salvador, 24, 43.
Salvador, official delegates of, 14.
Sanitation, 22, 25.
Sanitary engineering, 22.
San José scale, 67.
San Martín, 74.
Santiago, 43, 46, 152.
School of tropical forestry, 69.
Scientific bureaus, 30.
Scott, James Brown, 3, 15, 41, 43, 46, 47, 48, 50, 111, 113, 140, 150.
Scott, Sir William, 116.
Second Pan American Scientific Congress, 3, 7, 26.
Second Pan American Scientific Congress, members of, 15.
Second Pan American Scientific Congress, aims and purposes of, 16.
Secretary General, 129.

Section I, 17, 51, 53, 54, 55, 159, 167.
Section II, 18, 55, 60, 159, 183.
Section III, 19, 62, 66, 68, 71, 159, 191.
Section IV, 21, 78, 79, 80, 81, 82, 160, 207.
Section V, 21, 57, 58, 61, 62, 87, 136, 137, 161, 227.
Section VI, 23, 121, 161, 241.
Section VII, 24, 121, 128, 161, 251.
Section VIII, 25, 127, 129, 162, 265.
Section IX, 25, 133, 135, 136, 139, 162, 283.
Section committees, 156.
Section on chemical and physical sciences of First Pan American Scientific Congress, 127, 128.
Seepage, loss by, 72.
Seismology, 18, 55, 60.
Serrato, Francisco, 127.
Settlement of International Disputes, 93.
Sewage, 22, 24.
Sheep industry, 20.
Smithsonian Institution, 143.
Smuts, 67.
Smyrna, 82.
Society of Naval Architects and Marine Engineers, 58.
Sociological medicine, 25.
Sociology, study of, 31, 81.
Soils, 22.
South America, 18, 19, 21, 22, 25, 26, 71, 133.
Spain, 132.
Spanish, 32, 37, 58, 79, 88, 89, 121.
Spanish and English, teaching of, 31, 80.
Specifications and grade of forest products, 70.
Standards, 22, 57.
Standards of weights, etc., uniformity of, 38.
Stegomyia mosquitoes, 131.
Storage, 72.
Strasburg, 82.
Study of American constitutions, laws, and institutes, 36, 118.
Study of drugs, 37.
Study of lives of liberators and statesmen, 31.
Study of monetary systems, 39, 139.
Study of sociology, 31, 81.
Study of systems of taxation, 39.
Suárez, 103.
Suárez Mujica, Eduardo, 8, 41, 43, 47, 48, 90, 111, 142, 145, 147.
Supply and use of water, 22.
Suppression of alcoholism, 39.
Supreme Court of the United States, 97, 103, 106, 116, 117.
Surveys, 22, 57.
Surveys for the study of primitive tribes, 52.
Sweden, 132.

Swiggett, Glen Levin, 3, 43, 46, 47, 48.
Switzerland, 132.
Systems of belief, 54.

Tanning materials, 24, 125.
Tax on alcohol, 138.
Taxation, 26, 135.
Taxation, study of systems of, 30, 137.
Taxes, revenue producing, 26.
Teaching of international law, 97, 100.
Teaching of Spanish and English, 31, 80.
Terminals, 21.
Texas fever, 77.
The Hague, 65, 83, 100, 102, 105.
The Hague Academy of International Law, 35, 104.
The Hague Conference, 34, 107.
The Hague Conventions, 105.
The Hague Peace Conferences, first and second, 114, 115.
The Netherlands, 132.
Third Pan American Scientific Congress, meeting place of, 40.
Timber resources, 71.
Topics for Pan American Conferences, 159.
Town and city planning, 25.
Trade-mark Convention, 26.
Transportation, 25, 57, 134.
Transmission of the Final Act, 40.
Tuberculosis, 25.

Uclés, Carlos Alberto, 12, 40, 43.
Underground cables, 22.
Uniform American type of instruction, 141.
Uniform chemical nomenclature, 128.
Uniform laws relating to archeology, 51.
Uniform library classifications, 143.
Uniform methods in classification, etc., of merchandise, 133, 136.
Uniform methods in presentation of statistics, 133, 136.
Uniform methods of sampling and testing, 127, 128.
Uniform port charges, 133, 136.
Uniform railway gauge, 21, 28, 61.
Uniformity in commercial and demographic statistics, 39.
Uniformity in jurisprudence, 37.
Uniformity of customs regulations, etc., 25, 38, 133.
Uniformity of mining statistics, 37, 121, 125.
Uniformity of standards of weights, etc., 38, 133.
United States, 19, 22, 24, 27, 31, 40, 43, 44, 45, 56, 63, 64, 66, 68, 71, 77, 82, 84, 132.
United States, official delegates of, 14.
United States v. Arjona, case of, 117.
United States reports, 117.
University of Berlin, 83.

University of Paris, 83.
University of San Marcos, 40, 151.
Uruguay, 43.
Uruguay, official delegates of, 15.
Use and regulation of water supply, 72.
Use of cases, etc., in teaching international law, 100, 102.
Use of the metric system, 28, 59.

Venezuela, 43.
Venezuela, official delegates of, 16.
Ventilation, 25.
Victoria, Francisco, 103.
Vienna, Congress of, 34, 100, 102.
Villarán, Manuel Vicente, 40, 152.
Vital statistics, 25.

Waite, Chief Justice, 117.
Washington, George, 78, 80.
Water, use of, 72.
Water, use of surface and underground, 72.
Water upon arid lands, use of, 72.
Waterpower, 19, 22, 58, 70, 71.
Water supply, 25.
Water supply, use and regulation of, 29, 58, 72.
Weather bureaus, 60.
Weather forecasts, 18, 60.
Webster, Daniel, 118.
Weights and measures, metric system of, 59.
Welch, William H., 15, 46.
Westphalia, treaty of, 34, 100, 102.
Wheaton's Reports, 116.
White pine blister rust, 67.
White slave trade, 38, 131.
Woodward, Robert S., 15, 40.
World resources, conservation of, 64.

Yellow fever, eradication of, 38, 130.
Yellow fever, foci of, 131.

Zaldívar, Rafael, 14, 41, 43, 49.